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ORIGINAL LECTURES.

A COURSE OF LECTURES ON DERMATOLOGY.

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(Reported by Henry Wile, M.D.)

LECTURE III.

HERPES, MILIARIA, POMPHOLYX, PEMPHIGUS, LICHEN, PRURIGO, ACNE, ACNE ROSACEA.

HERPES may be described as an acute inflammatory disease, consisting of one or of several groups of vesicles, occurring chiefly about the face and genitalia. The eruption, preceded by slight malaise, appears in the form of pin-head and pea-sized vesicles, arranged in clusters, and accompanied by heat and swelling. The vesicles contain clear or cloudy serum, and show no disposition to rupture.

Herpes facialis, familiarly known as *fever blister*, occurs more often about the lips (*herpes labialis*), and generally accompanies some slight digestive disorder, colds, and fevers. The lesions become dry, form crusts, and disappear, being hardly worthy of treatment.

Herpes progenitalis, another form, occurring about the genitalia, is worthy of attention on account of the possibility of its being confounded with venereal disease. The lesions consist of groups of vesicles, more or less perfectly formed, upon a red base, running an acute course, and accompanied by uneasiness and slight burning, with, sometimes, pain. The chief characteristic of these lesions, as contra-distinguished from those of eczema, is their persistency to retain their form without rupturing. In *herpes præputialis*, in which the lesions are on the inner surface of the prepuce, they may, by rubbing on the glans, become macerated, and give rise to superficial excoriated patches which may easily be mistaken for chancroid. But the fact that the lesions occur in groups, which is not the case in any other vesicular disease other than herpetic diseases, should always prevent such an error of diagnosis. The treatment is simple, consisting of lotions of sulphate of zinc, five grains to the ounce of water, lead-water, diluted aqua ammonia, boric acid; also dusting powders. All forms tend to recover, although recurrences are common. *Herpes gestationis* is a rare herpetic disease resembling eczema, occurring in the latter part of pregnancy. It is sometimes a grave affection. It usually disappears after delivery. It is accompanied by intense itching.

Herpes zoster is an acute inflammatory disease, characterized by groups of vesicles upon inflamed bases, with neuralgic pains. It runs its course in two or three weeks, and between the fifth and tenth day the eruption is at its height, consisting of characteristic groups of yellowish, glistening vesicles, retaining their form, and

showing no disposition to rupture. In the old it is more serious than in the young, there being more pain, and the affection in general runs a more serious course. The varieties of the disease are made according to the regions affected. Thus, we have *herpes zoster capitis*, *facialis*, *nuchæ*, *brachialis*, *pectoralis*, *femoralis*, *cervico-brachialis*, *dorso-pectoralis*, etc. Occurring about the eye, it may be attended with the loss of that organ. It is generally unilateral, and seldom attacks the same individual twice. The lesions may ulcerate so as to leave scars, which may be distinguished from those of syphilis in that the former are in groups, and, moreover, occur in the line of the nerves.

Among the causes, cold, mechanical violence, unusual exertion, exposure, injuries to nerves, may be enumerated. It is a disease of the nerves and ganglia, consisting of an inflammation, as shown by post-mortem examination. In severe cases, treatment is called for, and positive relief may be sometimes given with the faradic current. General treatment may consist of the administration of saline aperients, iron, and arsenic. Locally, lotions of sulphate of zinc, carbolic acid, *Grindelia robusta*, flexible collodion and morphia, and the sulphide of zinc lotion, are all of service.

Herpes iris, regarded by some as allied to, or as an advanced stage of, *erythema multiforme*, may be defined as an acute inflammation characterized by groups of vesicles and vesico-papules, arranged in concentric rings, with a display of variegated colors. The lesions spread peripherally, and their color is sometimes striking, the tints being present in no other disease. It runs an acute course in one or two weeks, attacking, as a rule, the hands and forearms. It occurs generally in spring or fall, and is not contagious. There is little difficulty in distinguishing it from *herpes zoster*, *pemphigus*, or *erythema multiforme*, by the peculiar color of the lesions. Treatment is seldom called for, the lesions disappearing in a few weeks. The parts should be protected from friction, and a sedative lotion used.

MILIARIA is an acute disease of the sweat-glands, the lesions consisting of pin-point and larger vesicles and papules, accompanied by a pricking or tingling sensation. The eruption is abundant, and may occur in successive crops, accompanied or not by sweating. It is met with most frequently in adults or in infancy, especially in the weakly and debilitated. It is common in the tropics, and is also seen in this country and in Europe. The disease must not be confounded with *sudamina*, in which there is no inflammation. It runs an acute course, followed by slight desquamation. Relapses are common. The treatment consists of saline aperients, diuretics, quinia, and iron, lotions of black wash, lead-water, sulphate of zinc, sulphate of copper, etc.

POMPHOLYX is a disease allied to *pemphigus*, is rare, and does not possess very striking characteristics. The lesions consist of vesicles and blebs, excoriations with maceration and exfoliation. It occurs mostly about the hands (*cheiro-pompholyx*), fingers and palms, also the toes and soles of the feet, and is a disease which has

been much discussed in the last ten years. It is a distressing disease, and incapacitates the individual for a period of weeks, there being considerable oozing and exfoliation of epidermis, accompanied by burning. •

PEMPHIGUS, either acute or chronic, exists in two varieties, pemphigus vulgaris and pemphigus foliaceus, characterized by the appearance of blebs. It is a rare disease, out of 16,863 cases of diseases of the skin collected by the American Dermatological Association, there being only 14 cases. The lesions come out in successive crops, rupture, and disappear, without leaving any trace. The patient, after a variable time, may sink into a marasmus and die of exhaustion. In pemphigus foliaceus, the blebs do not come to perfection, but break down, giving rise to much moisture, causing maceration and exfoliation of the epidermis.

The causes are attributed to a disturbed nervous system, in some cases in which severe mental strain or depression has existed. The treatment consists in the long-continued use of arsenic in moderate or full doses. Locally, mildly stimulating lotions and ointments, as in the case of vesicular eczema, are useful.

LICHEN RUBER is characterized by pin-head or pea-sized, flat, angular, or pointed, shining and scaly, dull-red papules, which are discrete or confluent, running a chronic course. There are two varieties, plane and acuminata, and these may be slight or severe. In this country, the disease is mild, compared with central Europe. It occurs either localized or diffused, and attacks the hands, forearms, especially the flexor surfaces, the thighs, and trunk in the tracts of the nerves. It is always succeeded by pigmentation. The cause is assigned to nervous influences. It occurs more often in women than in men, and lasts a variable period, usually months. The peculiar appearance of the lesion is sufficient to distinguish the disease. The treatment consists in the administration internally of arsenic, quinine, etc., with regulation of diet, and hygiene. Locally, to allay the itching which is at times an annoying symptom, lotions of tar, carbolic acid, or thymol may be used.

PRURIGO is a disease seldom seen in this country, but it is common in Europe, and especially so in Vienna. It is a chronic inflammatory disease, characterized by small, rounded, numerous discrete, solid, pale-red papules, with thickening and itching. It is liable to be confounded with papular eczema, yet the pale, yellowish color of the lesions, and the fact that they generally attack the extensor surfaces, and occur usually in children, are in most cases sufficient to distinguish it.

LICHEN SCROFULOSUS is a chronic inflammatory disease, characterized by small, reddish or yellowish, grouped, scaly papules, without itching, occurring in scrofulous subjects. It is very rarely encountered in this country. It is observed chiefly in Austria.

ACNE is an important disease on account of its frequency throughout the civilized world. It is sometimes so slight as to be unworthy of notice, while at other times it is extremely disfiguring, running a chronic course and being not infrequently difficult to cure. It may be defined as an inflammatory disease of the sebaceous glands characterized by the formation of papules, tubercles, or pustules, or a combination of these lesions, usually chronic, and occurring, as a rule, about the face.

The face is the common seat of the disease, although it is occasionally found upon the back between and

over the shoulders, about the neck, and upon the chest. It is most frequently met with in early life, between the ages of fifteen and twenty-five years. There are two chief varieties—*acne papulosa* and *acne pustulosa*—sometimes occurring together, sometimes alone. A subvariety of the papular form, in which the lesions are small and discrete, is known as *acne punctata*, and a subvariety of the papular or pustular form, in which the lesions are accompanied by marked induration, is called *acne indurata*. Another inflammatory acne is produced by tar and the iodide and bromide of potassium, and is termed *acne artificialis*.

The causes are very numerous. It is met with in both sexes, and occurs most frequently in light-haired subjects. It usually begins at the age of fifteen or sixteen, and runs its course in one or two years, or becomes chronic, and continues five, ten, or more years. Among the causes, general debility, cachexia, anæmia, dyspepsia, constipation, and uterine disorders may be mentioned, the last not so much as is generally supposed. The pathology of the affection consists of an inflammation of a variable grade in and about the sebaceous gland, caused by disordered secretion, tending to the formation of pustules.

The diagnosis offers no difficulty in the majority of cases. The eruptions caused by the administration of the bromide and iodide of potassium may be known by their highly inflammatory character. There are two diseases with which it may be confounded—papular or pustular syphiloderma and variola. The lesions of a papular syphiloderma may or may not be around a sebaceous gland, while in the former the sebaceous gland is always involved. Then, again, in syphilis the papules develop slowly, and may be found in other parts of the body besides the face, while the acne papule develops rapidly, and is localized, as a rule, about the face. To distinguish it from variola, the absence of febrile symptoms is sufficient.

While certain lines of treatment are extremely valuable, there are some cases which prove most rebellious. The general health must engage the attention, and any functional disorder must be corrected. Dyspepsia or constipation not infrequently is present, and saline aperients are indicated, or a mixture known as "mistura ferri acidi," composed as follows:

R.—Magnesii sulphatis,	℥ij.
Ferri sulphatis,	gr. viij.
Acidi sulphurici diluti,	℥j.
Aquæ menthæ piperitæ,	℥iv.

Sig.—One tablespoonful with a gobletful of water before breakfast.

Another similar mixture is the following:

R.—Magnesii sulphatis,	℥iss.
Potassii bitartratis,	℥ss.
Sulphuris præcipitatis,	℥ss.
Glycerinæ,	f ℥ss.
Aquæ	℥iijss.

Sig.—One tablespoonful with water before breakfast.

Cod-liver oil, iron, arsenic, mineral acids, quinine, and glycerine, are the most useful general remedies. In some cases, especially of the pustular variety, calcium sulphide in doses of one-tenth to one-half grain gives good results; in other cases it is of doubtful value. In

certain cases in which there is a tendency to a hyperæmic state, ergot, in the form of ergotin, three to five grain doses, or the fluid extract, half drachm doses, sometimes acts happily. Arsenic may be used with advantage in cases of the punctate papular variety of the non-inflammatory type. Diet is an important factor in the treatment, and it must be properly regulated. Food and drink have a positive influence in many cases of acne.

Local treatment is always necessary, and in many cases alone suffices to effect a cure. It is usually best to begin with applications of hot water, once or twice a day, the water being dabbed on the part until it becomes red. This may also be used together with soft soap, or, where the skin is sensitive, castile soap. The best soft soap is that which is imported, it should be transparent and free from bits of caustic and other impurities. Another preparation of soap which may be used is "spiritus saponatus kalinus," composed of two parts of soap and one of alcohol, perfumed with some essential oil. To stimulate the circulation of the skin in sluggish acne, friction may be used with sand soap or sulphur soap. All comedones should be expressed, and all pustules laid open with a sharp-pointed bistoury. Where the skin is oily, one of the following lotions may be used.

R.—Sulphuris præcipitatis, . . . ʒi-ʒiij.
Glycerinæ, . . . ʒss.
Adipis benz., . . . ʒj.
Ol. rosæ, . . . gtt. j.—M.

Sig.—Apply twice a day.

R.—Sulphuris præcipitatis, . . . ʒj.
Etheris, . . . fʒiv.
Alcoholis, . . . fʒiijss.—M.

Sig.—Apply morning and evening; shake before using.

R.—Sulphuris præcipitatis, . . . ʒiv.
Camphoræ, . . . gr. x.
Tragacanthæ, . . . ʒj.
Aquæ calcis, . . .
Aquæ rosæ, . . . āā fʒij.—M.

Sig.—Apply twice a day; shake before using.

Vlemminckx's solution, diluted one part to five or ten, is often of value. It is prepared as follows:

R.—Calcis, . . . ʒss.
Sulphuris sublimati, . . . ʒj.
Aquæ, . . . fʒx.
Coque ad fʒxj et filtra.

In applying these remedies the patient must take from fifteen minutes to half an hour each time. A valuable agent for the removal of comedones is a paste composed of equal parts of sulphur, glycerine, alcohol, ether, and carbonate of potassium. This is to be rubbed in well, and subsequently washed off with water. Where the sulphur preparations are of no avail, mercurials may be tried. Corrosive sublimate, in an emulsion of almonds, or in a lotion with alcohol and ether, one or two grains to the ounce; also ointment of ammoniated mercury, fifteen to forty grains to the ounce of lard, may be employed. Care must be exercised not to use mercurials in connection with sulphur preparations, or while giving internal medicines containing sulphur, which are eliminated through the skin, *e. g.*, calcium

sulphide, as the skin becomes discolored by the formation of sulphide of mercury.

Acne rosacea may be defined as a chronic hyperæmic or inflammatory disease of the face, characterized by redness, dilatation of bloodvessels, hypertrophy, and acne. There are three stages of the disease: 1. Hyperæmia; 2. Hyperæmia with dilatation; 3. Hypertrophy. The course of the disease is chronic, and the onset is gradual. The face is the seat of the affection, and the part usually attacked is the nose, either the tip or about the alæ. Both sexes are liable, but in men it is usually more severe; in females it seldom goes beyond the second stage. In the third stage there is a new growth of tissue and bloodvessels, and the nose becomes increased in size, giving rise to the so-called rhinophyma, or "pound-nose" of German authors. The subjective symptoms are variable, though seldom marked.

The causes are numerous and diverse. Anæmia and chlorosis and menstrual disorder in women, nervous affections, excessive indulgence in alcoholic liquors, repeated and prolonged exposure to cold, etc., all act as exciting causes.

The first stage is due to a venous congestion which causes stasis, and gives rise to the hyperæmia. After a time, the congestion continuing, the walls of the bloodvessels yield to the abnormal strain, and dilatation is effected, and the second stage is established. The passive congestion gives rise to the formation of new connective tissue, in which again new bloodvessels are formed, which cause the part to increase in size, even becoming lobulated, producing the third stage of the disease.

It may be confounded with the tubercular syphiloderm, yet its chronicity is sufficient to distinguish it, together with absence of ulceration. From lupus vulgaris it may be differentiated by the absence of the characteristic yellowish or reddish lupus tubercles and the cicatrices. It may also be mistaken for lupus erythematosus, especially when the latter disease occurs on the nose; but there the fine scales, with minute prolongations extending into the ducts of the sebaceous glands, are usually sufficient to establish the diagnosis.

In the treatment, the same class of remedies may be employed as in simple acne. In the first two stages, ergot is sometimes of value. Linear scarification will in many cases reduce the redness; also electrolysis, by obliterating the bloodvessels. Carbolic acid, one part to three or four of alcohol, is often of service. Where there is much hypertrophy, ablation by the knife or cautery is the only efficient mode of treatment.

ORIGINAL ARTICLES.

COD-LIVER OIL, COMBINED WITH THE MURIATES OF AMMONIUM AND SODIUM.¹

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In these days of many medicaments, and their innumerable applications to diseased conditions of the human organism, new remedies being constantly added to the list, and, for a time, at least, partially displacing the older ones, physicians are prone to

¹ Read before the Newport Medical Society.

be too easily led to disregard or depreciate the value of many remedies, good in themselves, but which, from defective preparation, the addition of inert and worse than useless compounds, or too brief a trial, may be found to be of little or no service to the patients for whom they are dispensed. Perhaps no substance used in medicine has been subjected to greater abuses, and, in consequence, has been brought into greater disrepute, than cod liver oil. For this there are several reasons. Much of the so-called cod-liver oil is not cod-liver oil at all; more of it has been too carelessly and recklessly "tried out," and the livers of other fishes are frequently used to compensate for a deficient supply of the cod livers; added to which may be mentioned imperfect methods of refining, rendering it impossible to eliminate from the oil its organic impurities. To these fraudulent and pernicious practices it is largely due that cod-liver oil has not maintained, so well as it should, the high place in the category of therapeutic agents for which it was manifestly destined. On the other hand, with the exception of iron, mercury, and potassium, there is no remedy that will exert a more beneficent influence over so wide a range of diseases. In all lung affections that threaten disintegration and decay, cod-liver oil is confessedly the most valuable remedy at our command, when used in the incipient stages of the disease; and yet, as all know, it is too often powerless when the malady has passed beyond a certain point. Its value in scrofulous diseases, rickets, convalescence from wasting fevers, dentition, and whenever a general alterative and tonic effect is desired, is everywhere conceded; but I propose merely a brief study of the best method of its introduction into the economy, with a view to obtaining the best results.

It is reasonable to assume that almost all maladies for the cure of which cod-liver oil is indicated, are attended, if not pretty frequently sustained, by mal-assimilation, and those functional disturbances of the stomach and small intestine, so obstinate and difficult to allay, and which so often present a decided barrier to its administration. There can be no doubt, therefore, that the pancreas, whose secretion plays so important a part in the digestion of fatty substances, must, in common with the other organs of digestion and absorption, be weakened, and its function to some extent impaired; so that it would seem in very many (if not all) instances unwise to give cod-liver oil pure and in its crude form, when, from the very nature of things, it cannot be properly emulsified in the duodenum, even when not entirely rejected by the stomach. Happily, we have a means of overcoming this obstacle to its administration, and are enabled so to act upon the oil by trituration with solutions of gum, and in various other ways, as to break up its globules into microscopical granules, suspended in water by the gum; in other words, to form outside the body a "chyle" which may be readily assimilated within. Of all methods used for emulsifying cod-liver oil, I am convinced that the process of trituration with gum acacia is the best, and more nearly approaches the results reached by the pancreatic juice during digestion; for cod-liver oil should be absorbed as such,

in its entirety, if possible, the better to economize and secure its virtues. There seems to be no doubt that it possesses certain specific qualities peculiar to itself, which are not known to exist in any other fish oil, and its adulteration by other oils, and their frequent wholesale substitution for it, while claiming its name, are evils for which the physician should be on the alert, nor too hastily conclude that cod-liver oil is inefficient in certain cases, when, perhaps, he may not be using that remedy, but unwittingly may expect its best effects from some oil of inferior quality.

It has become the custom of nearly all of the manufacturers of cod-liver oil emulsions which have become popular, and have obtained (and to some degree have merited) the confidence of the profession, to incorporate with their productions more or less of the phosphatic salts or the hypophosphites, believing them to be of material benefit when thus administered to the patients, and an auxiliary force of the greatest value to the cod-liver oil itself. It has not, however, been very clearly demonstrated that these salts act otherwise than as feeble tonics, and, certainly, it cannot be said of them that they fulfil the end for which they are prescribed, to wit, the reproduction in the system of the phosphoric element, the partial loss of which is supposed to be inevitable in strumous and tubercular diseases, and whatever condition may constitute or accompany the "phosphatic diathesis."

But while the phosphates and hypophosphites do not seem to merit the prominence accorded them as adjuncts to the cod-liver oil treatment, I believe that the muriatic salts, properly combined with the oil, lend to its action far more of specific value than any others yet used in conjunction with it. Niemeyer says: "The internal use of the alkaline muriate mineral waters, which is so often beneficial in simple catarrh, is equally useful in some cases of consumption" (*A Text-book of Pract. Med.*, vol. i. p. 243). The chlorides of ammonium and sodium have long been recognized as agents of some power in tubercular and other lung and scrofulous affections, acting equally upon the organs of nutrition and respiration, and I have found that after using a preparation of cod-liver oil, combining these salts, the happiest results have followed.

My attention was first directed to this, in some sense, new departure in the administration of cod-liver oil compounds by Mr. A. K. Quinn, of this city, who prepares his own oil from fresh livers, and, having thoroughly purified it, emulsifies it with gum acacia each ounce of the preparation representing sixty-six per cent. of pure cod-liver oil and sixteen grs. of the muriates of ammonium and sodium. This should be taken in the ordinary doses in sweetened water or milk, dissolving readily in either, and it has been in almost all instances well borne by the stomach, with no disagreeable eructations.

I have prescribed it very frequently during the past year in a great variety of adynamic conditions, chiefly of the tubercular and strumous orders, and am justified in asserting that many times it has been

of marked and rapid service in arresting organic changes, and repairing weakened tissues, where other compounds had failed to manifest any curative power whatever.

As may be noted, there is no attempt at secrecy or privacy regarding the constituents of this remedy or its method of preparation, but, for convenience in prescribing, the originator has styled his production "Morrholeine," from *morrhua*, the cod, and attaches particular stress and import to the necessity of having a pure and thoroughly refined cod-liver oil used in its compounding, he having found by repeated experiments that without such an oil, a stable and palatable product cannot be secured.

I will briefly relate the medical histories of a few cases in which I have tested the virtues of the muriatic salts with cod-liver oil, selecting these from a number of which I have notes, as affording the most striking evidence of the good results obtained by their use.

CASE I.—D. S., æt. 29; native of Rhode Island; late horse-car conductor of New York. Had been for nearly a year suffering from lung trouble, as shown by pain in chest, cough, free expectoration, emaciation, etc. Grew worse, and was taken to Charity Hospital, and after spending some time there, his friends were sent for to take him home to die. When brought here, he was unable to walk from the boat to a carriage, a short distance.

I saw him on the next day, and found him with signs of what I would call chronic interstitial pneumonia; there were dulness at both apices, prolonged expiration, and bronchitic râles. After allaying a distressing irritability of the stomach with the usual remedies, I prescribed morrholeine, which he continued faithfully. He came here in the early part of May, and was driving a hack on July 4th.

CASE II.—M. M., mason's tender, aged 30; left Boston in April weighing two hundred pounds; came here to work, and thought that while coming down on the train and boat he aggravated a severe cold, which had troubled him, from time to time, for some months.

He worked here one week, growing worse all the time, and was then seized while at work with a pretty severe hemorrhage, which frightened him. He remained at his boarding-house two weeks longer, suffering from night-sweats, loss of appetite, a constant, sharp, and racking cough, and lost thirty pounds in weight. When I saw him, three weeks after his arrival, he presented a very bad appearance. His respirations were short and quick, his pulse rapid, and there were râles over both apices. I prescribed for him morrholeine and zinc and belladonna for his night-sweats, and in less than one month from the date of the prescription he was at work.

In neither of these above-mentioned cases was there any hereditary tendency to phthisis.

CASE III.—J. R., clergyman, æt. 32; had had for several months a short, dry cough, night-sweats, a gradual tendency to dyspnoea on exertion, and was being treated for nervous prostration with the *comp. syr. of the hypophosphites*. In the latter part of August, his symptoms culminated in a severe

hemorrhage, the quantity of blood expelled being nearly two quarts. On examination, the right apex was found indurated, with a harsh respiratory murmur for some inches downwards. I kept him in bed for three weeks, during which time he gradually improved in every way, his chief treatment consisting of the chlorides with cod-liver oil.

He has continued it faithfully since, and is now practically well. In this case there was a distinct heredity, proved by the fact of his father having died of phthisis.

Now, if the *hypophosphites* possess the power over lung-disease with which so many accredit them, surely here was an opportunity for them to exercise it, as my patient had taken them regularly and persistently for months, and they did not in any degree benefit him apparently, and certainly did not prevent him from passing almost beyond the possibility of recovery.

I could cite several other cases, but do not wish to occupy too much time, my desire being merely to direct attention to the good results which have attended the use of the chlorides of ammonium and sodium with cod-liver oil in my hands, and I hope that many others will be equally fortunate, and establish beyond doubt the therapeutic value of the combination.

CASES OF KNEE-JOINT EXCISION, WITH REMARKS.¹

BY CHARLES MCBURNEY, M.D.,

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MR. PRESIDENT: In my paper to-night I am able merely to present the histories of all my cases of knee-joint excision as a contribution to the statistics of that operation, with especial reference to the danger and mortality arising from this operation.

CASE I.—Frank Halle, aged twelve. Parents gave a history of synovitis complicated by abscess, occurring at the age of two. Both knees were affected. When the patient came under my observation at the Orthopædic Hospital, the right leg was flexed so as to form an angle of twenty-five degrees with the thigh. No extension was possible. The left leg was flexed as much, but could be extended so as to form an angle of ninety degrees with the thigh. The boy moved by sliding about on his toes, the heels touching the buttocks. Both knee-joints were surrounded with cicatrices of old sinuses.

On June 10, 1878, I attempted to excise the right knee joint, as the head of the tibia was displaced very far backwards, and forced extension aided by tenotomy had been attempted on the left leg without success. Owing to the great displacement of the leg backwards, and the shortening of the hamstring muscles and posterior ligaments, I was obliged to remove no less than four inches of bone, so that the femur was sawn after several sections had been made, far above the epiphyseal line. The operation was done under the constant use of the carbolic acid spray, and a complete Lister dressing

was applied. A plaster-of-Paris bandage was applied to the thigh and to the leg, the plaster appliances being connected by hoops of iron curved over the joint outside of the dressing. Horse-hair drainage was used. This case required a great deal of nursing. Numerous sinuses formed, one abscess had to be opened in the popliteal space, and necrosis of a portion of the lower end of the femur occurred. Bony union was not firm until May 6, 1883, nearly ten months after operation. By June 2d, patient was able to walk with a support on the left side, such as a chair or crutch. It was my intention to operate upon the other knee, but permission to do so was refused by the parents.

CASE II.—Kate Lyons, aged twenty-nine. This patient came under my observation in December, 1882, at Bellevue Hospital. Ten months before this time, she had had an attack of acute articular rheumatism, which especially affected the right knee-joint. I found the leg flexed at a right angle with the thigh, rotated outwards, displaced outwards and backwards, and firmly ankylosed. The patient was quite helpless from the deformity, was weak and anæmic, and her urine contained granular casts. I excised the joint on January 4, 1883. The patella was firmly adherent to the femur, and was removed. To allow proper extension of the leg it was necessary to make a second section of the femur. The bones were drilled at two points and silver wires inserted, which were brought out between the flaps. Full Lister precautions were used throughout the operation, and a Lister dressing applied. Rubber drainage-tubes were used. A plaster splint was applied to the thigh and another to the leg, and these were connected by iron brackets passing over the knee. Seventeen days after the operation I found it necessary to continue the leg splint down to the toes in order to prevent eversion. The limb confined by the plaster apparatus was kept upon an inclined plane, this position aiding in steadying the femur, and also allowing the under portions of the dressing to be easily inspected. The average temperature during the seventeen days following the operation was 100.2°. On one occasion, seven days after the operation, symptoms of carbolic acid poisoning appeared, and the temperature suddenly rose to 105.2°. A bichloride dressing was applied, and the temperature at once fell to 101.2°. On no occasion was there the slightest reason for anxiety about the case, except when the symptoms of carbolic acid poisoning were present. A collection of pus formed in the upper synovial pouch, and the silver wires also caused suppuration along their track. The patient was discharged able to walk well on April 28th, a little less than four months after the operation. The shortening in this case is 1.75 inches.

CASE III.—Charles McKenzie, aged fifteen, a healthy, well-developed boy, suffering from atrophy and deformity of the left lower extremity and left half of the pelvis, due to infantile paralysis, came under my care, at St. Luke's Hospital, on February 1, 1883. The thigh was partially flexed upon the body, the leg flexed at a right angle to the thigh, rotated outwards, and displaced backwards. No

ankylosis existed, but the greatest extension possible was 112°. The muscles of the thigh, leg, and foot were completely helpless, and the whole limb looked like that of a boy ten years of age. The shortening, as ascertained by careful measurements, was estimated to be five inches. This patient was able to move about with difficulty on crutches.

I excised the knee-joint on February 17, 1883. The tibia and femur were wired together with silver wire. Two rubber drainage-tubes were used, one on the inner, and the other on the outer, side of wound, and the wound was washed with carbolic acid and water, 1 to 40, and covered with gauze wet with the same solution. Dry gauze and borated cotton were bound over this dressing. A plaster splint, such as is here shown, was then applied, a single curved iron bracket passing over the knee, and a single nearly straight one passing behind. The limb was then kept upon an inclined plane.

This patient's temperature rose on the next day to 104°, on the second day sank to 103°, and by the sixth day stood at 99.6°. From this time on, there was never any temperature above 100.6°, and that temperature was reached only once.

In this case, also, pus formed in the upper synovial pouch and along the track of the wires.

Firm bony union was found on April 28th, two months and eleven days after operation.

By May 4th, all sinuses were soundly healed, and with an artificial shoe constructed to make up for the extreme shortening, the patient was walking about with two sticks by July 4th.

At the present date, he is able to walk easily and for long distances with a single cane. I cannot present this patient, as he lives in the northern part of this State. I have a very recent report of his condition from his physician.

CASE IV.—Serreno Cappa, aged twelve. Five months before coming under my care, at St. Luke's Hospital, this boy had received a kick upon the right knee, the injury being rapidly followed by arthritis, abscesses, and caries of the head of the tibia. On examination I found numerous cicatrices about the knee, the soft parts much thickened, great pain on motion, and two open sinuses leading to carious bone in the head of the tibia. The leg was slightly flexed, and motion of four or five degrees could be made when the patient was etherized. I determined to excise the joint, as the only means of saving the leg, and to remove the carious bone at one operation. This I was able to do May 29, 1883. The section of the femur was made just below the epiphyseal junction, and the usual section of the head of the tibia. This last section opened several small abscesses in the head of the tibia, two of which had fistulous tracts leading out through the skin. These I scraped out from the sawn surface, thus making grooves on the upper end of the tibia, in which drainage-tubes of rubber could lie without separating the femur and tibia. Three tubes were inserted and brought out in the line of union of the skin. Drainage-tubes were also inserted at each lower angle of the incision, to drain the superficial wound. The patella was removed and silver wires were used to assist apposition, and a plaster-of-Paris

splint was applied similar to the one here shown, with a single bowed bracket in front, and a nearly straight one behind. A peat dressing was applied. The first dressing was changed on the fifth day, and after that frequent dressings were made; and, thorough irrigations with a 1 to 40 solution of carbolic acid, with the exception of the evenings of the third and fourth days, when it reached 100.6°, the temperature did not rise above 100° up to July 10th, six weeks after operation. The uncovered soft parts then became swollen. I took out the wires and removed the plaster splint, substituting for it a posterior wooden one. Three days later there was a sudden rise of temperature to 104°, and erysipelatous redness appeared on the leg. This attack rapidly subsided, for two days later the temperature was 99°, and did not again rise.

By September 15th, three months and a half after operation, all sinuses had closed, firm bony union had taken place, and patient was able to use the leg freely. The shortening in this case is one inch and a half.

CASE V.—Agnes Watkins, aged six. Patient came under my notice at St. Luke's Hospital, May 23, 1883, being transferred from the Orthopædic Department. Had been treated conservatively at the Orthopædic Dispensary and at St. Luke's for some three years without success. Numerous abscesses had formed and opened, and there were extensive otitis and caries of the lower end of the femur on the right side. The leg was flexed and displaced backwards.

May 25th I excised the right knee-joint, the section of the femur being made well below the epiphyseal line, and the whole articular surface of the tibia being removed. The patella was not adherent and was excised. Two wire sutures were used, the twisted ends being brought out in the line of the wound. A drainage-tube of rubber was inserted at each lower angle of the wound. A plaster apparatus including the foot, similar to that shown, was used, excepting that as the limb was so light and small, no anterior bracket was required. Peat dressing was applied. The dressing was changed every few days, and a 1 to 40 solution of carbolic acid used as a wash through drainage-tubes. Six weeks and a half after the operation the wires were removed, and perfect union of the bones found. Two months after operation the patient was up and walking about.

The temperature in this case reached 100.2° on the evening of the sixth day. On no other occasion did the temperature go above 100° until the wires were removed; it then went up to 102°, but at the end of two days was again normal. Present shortening less than three-fourths of an inch.

CASE VI.—Matthew Carey, aged seven, came under my care at Bellevue Hospital, in July, 1883, giving a history of synovitis of the right knee-joint originating in a traumatism received eighteen months ago. I found the knee flexed on the thigh at an angle of forty-five degrees, rotated outwards, and the head of the tibia markedly displaced backwards. I divided the hamstring tendons and attempted to straighten the limb, but, as so often happens in such

cases, the shortened posterior ligaments could not be made to yield, and the head of the tibia was still more displaced. The attempt at straightening was also followed by a partial paralysis of the muscles of the front of the leg.

October 18, 1883, I excised the joint, finding almost complete destruction of cartilage without ankylosis. This operation was done with constant irrigation by a bichloride of mercury solution, 1 to 1000. Silver wire used and ends brought out. A deep continuous suture of catgut was used in sewing up the capsule, and a similar one for the superficial wound. A rubber drainage-tube was inserted at each angle of the wound, and, to provide against the accumulation of fluid in the upper synovial pouch, a short tube was passed through the skin into the upper end of this sac. The wound was dressed with iodoform, carbolized gauze, and cotton, and was put up on a posterior wire splint.

The first dressing was removed thirteen days after operation, and tubes removed. The wound had entirely healed except at points of entrance of tubes. During November and December a dermatitis without constitutional disturbance, set in. This was probably due to the irritating effects of the carbolized gauze.

The highest temperature reached in this case was 101°, on the evening of the day after the operation, and again once on the third day. The average temperature was very nearly 99.5°. The position is good, and the boy can walk; but to-day, five months after operation, bony union is not quite perfect.

CASE VII.—George Betz, aged seven, a very strumous boy, whose right knee had been previously opened by one of my colleagues at Bellevue Hospital for the relief of an obstinate synovitis, with caries of the patella, and fungous disease of the joint. The patella had been removed, and the joint carefully scraped out. The operation had apparently been entirely successful for a time, but, under my observation, pus formed in the joint, found its exit through the anterior part of the upper synovial pouch, and the probe readily detected caries of the lower end of the femur.

January 31, I excised the joint, finding extensive disease of the lower end of the femur. The operation was done under the constant irrigation with 1 to 1000 bichloride solution. Catgut was employed for ligatures and sutures; the wound was dressed with iodoform, carbolized gauze, and cotton; bone drains were used; and a complete plaster splint applied *over all*. This dressing was not removed till six weeks after the operation. Pus was found in considerable quantity beneath the dressing. A line of prominent granulations existed throughout most of the wound. Bony union was almost complete.

The highest temperature reached in this case was 100.4°, on the twentieth day after the operation; the average temperature throughout was below 100°. I think it was a mistake to attempt to leave this first dressing on so long. Slight overextension, which might have been rectified at an earlier date, now exists.

CASE VIII.—Mary Finkbeiner, aged twenty-six.

When eight years old, this patient received an injury to her right knee, which was followed by a synovitis of ten weeks' duration. She has been able to walk, with a limping gait, up to six months ago, when renewed disease of the joint forced her to use crutches. When the patient came under my care, at St. Luke's Hospital, in February of this year, I found a large abscess in the head of the tibia, opening externally about two inches below the joint, and above, through a large opening in the articular cartilage, communicating freely with the joint. Bony crepitus on motion was marked, the joint much swollen, and the leg partially flexed. General condition of patient very bad.

March 7, I excised the joint, the section of the tibia opening a large abscess already referred to, and the first introduction of the drill on the inner side opening another. Both of these abscesses were thoroughly scraped, and openings for drainage-tubes made into them through the anterior surface of the tibia, *about two inches below the joint*. Rubber drainage-tubes were introduced through these openings. The operation was done with constant irrigation of bichloride solution, a deep and superficial continuous suture being used in the wound. A short bone drain was inserted at either angle of the wound. It was impossible to use wire or other means to hold the bones together, as the abscesses referred to had so weakened the head of the tibia. The wound was dressed with iodoform and gauze, and the limb bandaged to a posterior wooden splint, with foot-piece, to prevent rotation of the leg. This dressing was untouched until yesterday, twenty-two days after the operation, when I found the wound soundly healed, without pus. I removed the wooden splint, and put up the limb in the bracket splint shown. This case, like the preceding two, is not finished, and is only presented as bearing upon the question of immediate danger from the operation. The temperature record of this case is unusually good for a patient twenty-six years old. On the evening of the day after operation, the temperature reached 100.4°. With that exception, the temperature has never risen above 99.4°. It is noticeable, too, that, although no wires were used in this case, it was very evident at yesterday's examination that the bones were in close apposition.

The method of operating was nearly the same in all cases, a slightly curved incision being made from the back part of one condyle across the front of the joint below the patella, to the back part of the other condyle. The patella was removed in all the cases, even when not diseased, and also as much synovial membrane and diseased capsular tissue as possible. In only the first case was any attempt made to use a drain passing from one side of the joint to the other. Two silver wires were used to suture the bones in every case except the last. The apparatus used has varied, but in five cases I have used the plaster splint with brackets similar to the one shown. This apparatus can be readily made and applied by the operator immediately after the operation, and allows of moving and dressing the limb very readily. I think that the best method is the one I adopted in the last case, that of putting

the limb immediately after operation in a permanent dressing, and fastening it to a posterior wooden splint with foot-piece; this provides against the chance of having to remove the plaster apparatus soon after the operation in case of swelling of the parts, or on account of accidental soiling of the plaster. At the end of two or three weeks the plaster splint with bracket can then be applied, and any desirable change in the position of the leg made.

I have never tried the incision recommended by Hahn, of Berlin, which passes across the joint *above* the patella. It would doubtless allow of a more ready removal of the upper synovial pouch. Such a removal is, I think, of considerable importance, as in most cases which I have seen there has been a tendency to the accumulation of fluid at that point.

With regard to suturing the bones with wire, or nailing them together, as Hahn did in so many of his cases, I am inclined to think that neither procedure has very great value. In an ordinary resection of the knee the posterior ligament is uninjured, and forms a thorough posterior support, and the natural shortening of the hamstring muscles must draw the tibia upwards. Rotation seems to be the movement most to be feared, and that can be avoided by the retaining apparatus.

PERIPHERAL PARAPLEGIA.

BY JOHN FERGUSON, M.A., M.D., L.R.C.P.,

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It is with some hesitation I adopt the caption "Peripheral Paraplegia" to designate a class of cases in which a correct diagnosis is by no means an easy matter. We meet with a patient who gives us a history of good health up to the present attack, who states that his illness began somewhat suddenly, that it could not be traced to any injury, and yet he is more or less completely paralyzed in both legs, or in both hands and arms, or in all these members.

On going more fully into the details of the case, we gather that the patient has been working at some exposed employment, in which he has had repeated wettings and chills; or that he has been called to stand upon cold, damp ground, with a current of air passing around his feet and legs; or that he has been engaged in draining during the cold season of the year. From such occupations, so far as I can ascertain, comes the disorder on which I purpose making a few remarks, recording some cases, and asking the profession to express an opinion.

The trouble usually begins with a feeling of general fatigue; the patient complains of a want of energy for his accustomed work; the limbs feel strange, and yet it is hard for the patient to say what they really feel like. There is some loss of control over them; this loss of power may be but slight, or it may suddenly become quite alarming. There is a tingling in the affected parts; but the sense of touch may remain only slightly or not at all impaired for a time. The tingling becomes more and more annoying, the weakness of the limbs gradu-

ally increases, until the patient is not able, or scarcely able, to walk. From this stage, things may begin to mend, and, after a protracted illness compared with the severity of the symptoms, there is a restoration to complete health.

In other cases, however, the symptoms grow worse than those depicted above, and the patient takes to the bed. The legs, as just stated, have suffered first, but the disease does not stop there. By and by, functional derangements set in. There is more or less difficulty in passing urine, the bowels are constipated, the patient loses weight considerably, and the flesh is soft. In severe cases, in which the illness is marked in its symptoms, and protracted in duration, the girdle-pains of paraplegia are at times quite pronounced.

Looking at the nervous condition of the patient more closely, it will be seen that the paralysis, or, rather—for a time—paresis, was slight. On close inquiry, it is found that the state of the sensory nerves first drew the attention of the patient. The strange feeling of the limbs was first noted. This feeling is subjective rather than objective. The patient realizes that the sensation is disturbed, even although the tactile power remains fairly good. In succession to this state of sensory derangement come the motor aberrations. Steadily the paretic condition creeps on, until the power of the limbs is wholly, or almost wholly, gone. So far there is no evidence of anything being wrong with the spinal cord; but this does not always remain so, and after a time there are signs which lead us to believe that it is also affected. Of the symptoms here, I have mentioned a few, such as the girdle-pains, constipation, and difficulty in voiding urine.

Where is the lesion situated which causes this form of paralytic trouble? Three places suggest themselves: the brain, the spinal cord, or the peripheral nerves. With regard to the brain, we must note that a paralysis occurring from any lesion in this organ is generally unilateral. To this statement the only exceptions of any moment are: 1. General paralysis of the insane; and, 2. When the injury, or disease, involves that part of the brain where the fibres cross. Now, the disease in question is bilateral, and, therefore, cannot depend upon any lesion affecting only one side of the cerebrum. The history of the case clearly excludes general paralysis of the insane, or disease in which the cerebral fibres decussate.

Turning to the spinal cord as a possible place for the cause of the disturbance, several points come up for examination: 1. The disease is bilateral—just as it might be if due to injury or disease of the cord. 2. There is either loss or impairment of the functions of both motor and sensory nerves; as we would find from a spinal cause. 3. There is the girdle-pain. 4. The organic functions of life suffer—similarly to cases in which the origin of the disease is undoubtedly spinal in its nature.

With regard to the peripheral nerves, we see: 1. That the diseased action begins at a distal part of the body, as the foot and leg. From this, as a starting-point, it gradually advances until parts more centrally situated are implicated. 2. That

the girdle-pain appears late in the progress of the case; and if the patient be fortunate enough to make a speedy recovery from the earlier stages of the paralysis, this symptom may be slight, or not at all marked. 3. That the loss of power over the bladder and bowels is also a late feature of the case, and appears to come on quietly and insidiously, as the case is advancing from a lighter to a severer type. 4. That the abnormal condition begins to show itself first in the sensory nerves, which never escape. The opposite of this is the case with regard to paraplegia from the spinal cord. The motor are more likely to suffer first than the sensory, and, indeed, the latter may not become affected at all.

From this description, I have no hesitation in regarding these cases as of peripheral, and not central, origin. The lesion commences in the distal ends of the nerves, and thence advances along the nerves towards the centre of the body, involving larger and larger trunks as it advances. Finally the cord is reached, and once this has taken place, there is no further difficulty in understanding the girdle-pain, or the loss of action in the bladder and bowels.

CASE I.—William G., æt. 55; healthy. There was no history of syphilis in this case. Previous to the attack he had been a watchman, and was exposed a great deal to cold and wet. The attack began in the late fall weather. He complained of tingling in his feet. Soon after this, his hands were similarly affected. He began gradually to lose power over his legs. In about three weeks from the commencement of his attack he could not walk. Although a strong man, he had almost entirely lost grasp in his hands. He steadily grew worse. In the seventh week of his illness, the bowels and bladder became irregular and sluggish. The catheter had to be used. At the end of the eighth week he suffered a good deal from the girdle-constriction around the body. Things remained in this condition for upwards of five months, when a slow improvement took place. By the end of the summer following he had largely regained his health, although he has never been up to his former degree of vigor, and there is a very slight amount of paresis still remaining.

CASE II.—James L., æt. 48; yardman. This patient was greatly exposed—frequently very warm, and then chilled. Had a severe chill a week before I saw him. When he came first under my notice, he was complaining of constant tingling in his feet and hands. Sense of touch still good. He had some difficulty in walking, as his knees would go out from under him. By the end of the second week the sense of touch was greatly impaired, though it was never lost entirely. When sitting on a chair, he could make no effort to raise the thigh with my hand placed upon his knee to exert a downward pressure. The patellar tendon-reflex was completely absent on both sides. In ten days more he could not walk at all. On the thirty-first day from my first visit, he was seized with severe girdle-pain, which caused much suffering for the next month, when all the symptoms began to abate, and he made a good recovery. No trouble with the bladder, but the bowels became torpid.

Cases III., IV., and V. present so many features similar to the above that I forego giving any detailed history. In Case IV., that of a Presbyterian clergyman, I might mention that he had been exercising himself with clubs, and felt warm. He directly drove a distance of about ten miles. The day was cold. To this he dates back his illness. He suffered greatly from shooting pains in the back and legs.

These five cases have fallen under my own observation. Three other similar ones I saw in the clinic of Prof. Grainger Stewart, of Edinburgh, and it was with no small degree of interest that I heard that learned scholar comment on their probable nature. Whatever might be their cause, one thing seemed clear to his mind—that they were of peripheral origin. Since then, the cases I now record have fallen under my notice, and the more I think over the matter, the more firmly do I become convinced of the truth of the above opinion.

Now, what is the pathology of such cases? I have not had the opportunity of making a post-mortem in any such case, as those I have seen recovered. On this account, it is impossible for me to express a positive opinion. Still, judging from the causes, such as cold and exposure, that we find preceding the disease, and looking carefully at the clinical history presented by persons so attacked, there is a good deal to support the view that there is a general neuritis of the peripheral nerves. This is not all conjecture, however. A careful research of the literature bearing in any way upon this question, reveals the fact that patients having the symptoms of this form of paralysis, and dying of some other cause, did, on examination, yield evidence of inflammation of the nerves.

The prognosis, so far as can be ascertained, is good.

The treatment which I have adopted consisted in good sustaining measures. Of the two classes of drugs, the arterial contractors and the arterial dilators, I have obtained the best results from the latter; and of these, none has acted as well as aconite. Shampooing of the limbs and surface of the body is also useful, and should be followed by an efficient friction with a good, thick bath-towel, until the skin begins to feel tender. Stimulating agents, as mustard, may be put in the water, or light sinapisms to the surface, changing their place of application.

THE RADICAL CURE OF ARTIFICIAL ANUS.

BY WILLIAM A. BYRD, M.D.,
OF QUINCY, ILLINOIS.

IN THE MEDICAL NEWS for February 2, 1884, there is an editorial article with the above heading, in which is discussed the relative value of the old and classic operation introduced by Dupuytren, and variously modified since his day so as to meet the requirements of different surgeons, and the excision of the affected portion of the bowel and the stitching together of the upper and lower ends, as first practised by our accomplished countryman, Dr. R. A. Kinloch, of Charleston, S. C. The writer con-

cludes, from results of reported cases of enterectomy, with suturing of the divided ends of the bowel, that it will not bear the crucial test of time and experience, and that the far less dangerous operation of Dupuytren will be the operation of the future surgeon. But these are the words: "Hence we think that the procedure should be reserved, first, for the more simple cases in which compression, cauterization, and the enterotome and autoplasty have failed; secondly, for cases of great destruction of the intestinal wall with extensive prolapse of the mucous membrane, and with or without invagination of the upper portion of the gut; and, thirdly, for the cases in which the ends of the intestine are so disposed that, even after the destruction of the éperon, there could be no reëstablishment of the natural course of the feces, as would happen if the lower end of the gut were placed above the upper end, if the two segments crossed each other at a right angle, or if there were a notable difference in the calibre of the two ends of the intestine."

I wish to call the attention of the reader to a plan that I believe will be found as safe as that of Dupuytren, and as effective in joining the ends of the bowel by suture, when that method proves a success. The method that I propose is to free the bowel from all attachments at the site of the artificial anus; then remove a section from each end of the bowel, opposite the attachment of the omentum, obliquely from the omental border, so that the opening into the bowel will be elliptical in shape, and the long diameter of the opening twice as great as the transverse diameter. Then the edges of the bowel should be brought together carefully with the peritoneal coats in apposition, the ends coming together in a V-shape, leaving a small portion ununited at or near the omental border. The portion of bowel with the opening in it should then be attached to the opening in the abdominal walls, so that all gases that form would have a free escape. This procedure would free the operation from the danger of over-distention, which—if the operation is done quickly, and with proper precautions as regards cleanliness—is the chief factor in the production of a fatal issue. This diminutive opening would likely heal up without further interference.

I have operated for the closure of artificial anus three times, but have never adopted the method here suggested, as no case has presented since the matter suggested itself to my mind. I feel sure the method can be successfully carried out by most of our surgeons, and I hope that some one will shortly demonstrate its feasibility.

I have in six cases excised a portion of the bowel and sutured the divided ends into the opening in the abdominal wall, making an artificial anus, for intestinal obstruction, and none of the patients have died under the second month after the operation, and none from the effects of the operation, and three are living and are in perfect health now; one operated upon October 9, 1878, another January 21, 1882, the other one in September, 1882. The difference in the calibre of the upper and lower ends of the bowel need not be an objection to the performance of the operation, as that portion having

the larger calibre can be closed with sutures so as to allow of the smaller portion fitting it, or the smaller piece can be cut off diagonally enough to fit the larger opening. Of course if the bowel crosses at the point near where the artificial anus is, so as to have the lower piece present from above and the upper from below, enough of the canal will have to be excised to correct the trouble. In one case I sutured the ends of the bowel together parallel to each other, so as to insure not catching tissue that I did not want in my enterotome when the operation for the radical cure was performed. If the operation should fail on account of non-closure of the opening, then the plastic operation may be performed, with an almost assured success, that I first described in the *Medical and Surgical Reporter* for October 25, 1879, and also in the Address in Surgery, delivered by me when Chairman of the Surgical Section, before the American Medical Association, at its session in St. Paul, in 1882.

I wish to emphasize the benefits to be derived from leaving an opening for the escape of the gases that almost always form and complicate recovery from nearly all operations upon the abdominal viscera. I called attention to it in a paper entitled, "Abdominal Section in the Treatment of Ulceration and Perforation of the Cæcum and the Appendix Vermiformis," read before the Surgical Section of the American Medical Association, in Richmond, in 1881, when I used these words: "Another thing that I wish to call your attention particularly to is the benefits derived from having an artificial anus formed. This is not a fictitious advantage, as it allows the gases that form in the bowels to escape without distending them, and, perhaps, causing small cracks in the peritoneal coat, inducing peritonitis or paralysis from over-distention."

416 JERSEY STREET, February 18, 1884.

MEDICAL PROGRESS.

REMOVAL OF MALIGNANT TUMOR OF THE BLADDER.

—PROF. F. GUYON reports the case of a man, æt. 58 years, who had abundant and persistent hæmaturia; on examination a diagnosis of vesical tumor was made. In spite of absolute rest and various methods of treatment, the patient continued to lose blood, and Guyon decided to explore the bladder. Having opened the viscus, by the hypogastric operation, he found a tumor springing from the right wall and supported by a pedicle an inch and a half or two inches long. It was easily removed by the *serre-nœud*, and the point of attachment was scraped with the nails and the curette. There was very little hemorrhage. Two drainage-tubes were put in, and a Lister dressing applied. The patient began to improve immediately, the urine remaining bloodless from the time of the operation, and in about twenty days the wound was completely cicatrized. The cases reported by Billroth, Volkmann, Kocher, Humphrey, Thompson, Bazy, and Guyon (who has performed the operation in other cases), show that the operation is both justifiable and demanded under these circumstances.

Guyon is in favor of the hypogastric operation, in exploring for tumors, because: 1. It has been clearly shown that the suprapubic operation is relatively easy, and much less dangerous than the perineal. 2. It gives much more room than the perineal section, because it enables the operator freely to explore the viscus and see what he is doing.—*Ann. des Mal. Génito-Urin.*, March, 1884.

THE TREATMENT OF SUPPURATING BUBOES BY COMPRESSES.—O. PETERSEN, in an article on this subject, says that so soon as fluctuation is detected the buboes should be widely incised and emptied, and syringed with carbolic, or corrosive sublimate, solution; after the bleeding has ceased iodoform should be dusted on. The wound is then filled with salicylic wadding, a pad of this or of tow placed over it, this covered by oiled paper, and the whole fastened by a spica bandage. Unless the discharge is profuse, this dressing may remain untouched for eight or ten days. The average time of healing by this method in one hundred and fourteen cases was only twenty-three and three-tenths days, while the time required in twelve cases without this dressing, was fifty-three and eight-tenths days.—*Centralbl. f. d. klin. Med.*, February 23, 1884.

A NEW TRANSFUSION APPARATUS.—At a recent meeting of the Académie de Médecine, M. DIEULAFOY exhibited a new transfusion apparatus made by Collin. The injection of the smallest quantity of air into a vein is avoided, as whatever air may find its way into the apparatus immediately accumulates in a receptacle at the top. There are no valves in the instrument, small balls of hard rubber being used instead. Two cuts, illustrating the mechanism of the instrument, may be found in the *Revue de Thérap.*, January 30, 1884.

IODOFORM IN CANCER OF THE CERVIX UTERI.—DR. CASTRÉ particularly recommends (*Thèse de Paris*, July, 1883) the following formula, first advised by M. Gillette:

R.—Iodoform, ʒivss.
Sulphate of quinine, ʒij.
Powdered charcoal, ʒiv.
Essence of peppermint, gtt. lx.—M.

Thus prepared, iodoform may be added to other mixtures which it may be desirable to use. In cancer of the cervix, Castre recommends this preparation in powder, applied, on a cotton tampon, directly to the ulcerated surface. The ulcer should not be scraped or interfered with in any way before applying the tampon. This application may be made every two, four, or even ten days.—*Bull. Gén. de Thérap.*, February 29, 1884.

TRANSFUSION IN BRIGHT'S DISEASE AND DIABETES.

—M. DIEULAFOY recently reported to the Société des Hôpitaux, the case of a man æt. 54 years, who had had abundant and repeated epistaxis, into whom about f ʒiv of blood were transfused, with the happiest results. The new blood acting by its quality and not by its quantity, modified the blood of the patient and acted as a hæmostatic. This success has given to Dieulafoy the idea of introducing transfusion as a therapeutic measure in certain dyscrasic diseases, particularly Bright's disease, as has already been done twice by Bartels, in uræmia.

In the two cases published by Dieulafoy, there may be noticed a considerable amelioration of the general symptoms, and an enormous diminution of the quantity of albumen. The second case was that of a woman, who passed three grammes of albumen and twenty-four grammes of urea in a day, before the transfusion, and only eighteen centigrammes of albumen and thirteen grammes of urea afterwards. M. Dieulafoy questioned if a complete cure could not be obtained by repeated transfusions if the treatment was commenced early. M. DUJARDIN-BEAUMETZ did not believe transfusion capable of effecting good results when there is organic lesion. He did not see how transfusion could repair an altered kidney.—*Ann. des Mal. Genito-Urin.*, March, 1884.

TREATMENT OF PERIPHERAL NEURALGIA BY OSMIC ACID.—DR. A. EULENBURG, of Berlin, says, in a communication on this subject, that the observations published by Delbastaillé on the treatment of certain tumors (sarcoma and scrofulous lymphoma especially) have been confirmed by others. Lately, Neuber has used from ten to twenty-four injections of osmic acid in two cases of sciatica, and in one case of trigeminal neuralgia, with complete success.

When the tendency to recurrence of the neuralgic attacks is considered, the results of this treatment do not seem to be very encouraging. Twelve cases are tabulated, including sciatic, lumbo-sacral, brachial, intercostal, occipital, and trigeminal neuralgia; of these, three, all recent cases, were cured, two being sciatic, and one brachial; in five cases there was no change for the better, and the remaining four were improved, other treatment being substituted in three of these. The number of injections in these cases varied from three to fourteen, extending over from one to six weeks, the injections being made over the seat of greatest pain, in order, if possible, to obtain a direct action by diffusion of the acid to the perineurium. The injections were made of a one per cent. aqueous solution in doses of mv . Eulenberg cautions that the solution should be kept in the dark, as otherwise it becomes black; and for this reason it is better to use a freshly prepared solution.—*Berliner klin. Wochens.*, February 18, 1884.

THE ADMINISTRATION OF PARALDEHYDE.—As a pure hypnotic, says PROF. DUJARDIN-BEAUMETZ, paraldehyde is superior to morphine and chloral. The sleep is more calm, the awakening is easier, and is not accompanied by the headache and other bad symptoms which invariably accompany the use of opium. But paraldehyde is powerless in pain. In insomnia, especially that of morphiomaniacs, it is an excellent drug.

M. YVON gives various formulæ for its administration; as paraldehyde $\text{f}\text{3jss}$, alcohol (90°) $\text{f}\text{3vj}$, simple syrup $\text{f}\text{3iv}$, tincture of vanilla mlxv . Dose, $\text{f}\text{3v}$ to $\text{f}\text{3j}$ in sweetened water. It may be given in what Yvon calls the hydro-alcoholic solution—paraldehyde $\text{f}\text{3ss}$, alcohol (90°) $\text{f}\text{3j}$, boiling water $\text{f}\text{3j}$. This is a 1 to 50 solution, the dose of which is $\text{f}\text{3ijss}$ to $\text{f}\text{3v}$ or more. This may be given in a little sweetened water, or in an aromatic infusion, as tea, mint, etc. The aqueous solution is, paraldehyde $\text{f}\text{3j}$, boiling water $\text{f}\text{3jss}$, the dose of which is about $\text{f}\text{3ss}$. Instead of pure water, any distilled aro-

matic water may be used; or mlx of paraldehyde may be dissolved in $\text{f}\text{3ijss}$ of water. Another formula is, paraldehyde mxv to $\text{f}\text{3j}$, simple syrup $\text{f}\text{3j}$, water $\text{f}\text{3ij}$, tincture of vanilla gtt. xx . To be taken in one or two doses. The vanilla may be replaced by tincture of canella, or some form of mint or anise. It may be given in elixir, paraldehyde $\text{f}\text{3ijss}$, alcohol (90°) 3jss , tincture of vanilla $\text{f}\text{3ss}$, water $\text{f}\text{3j}$, simple syrup $\text{f}\text{3ij}$. Dose, about $\text{f}\text{3ss}$, in water.—*Bull. Gén. de Thérap.*, January 30, 1884.

AMPUTATION OF THE UTERUS BY THE ELASTIC LIGATURE FOR CHRONIC INVERSION.—PROF. A. MAZZUCHELLI, of Pavia, reports the case of a woman, æt. 35 years, who had inversion of the uterus dating from her seventh labor. After several ineffectual attempts to restore the organ to its proper position, Mazzuchelli decided to remove it by means of the elastic ligature. The uterus was drawn down, the ligature thrown around it by means of the Desault polypus serre-nœud, and was then replaced in the vagina. Thirty hours afterward the organ came away. Antiseptic injections and powders were thrown in, and the patient was soon cured. This is the seventh Italian case, all of which recovered.

The statistics collected by Denucé show that of thirteen cases in which the elastic ligature was used, only one died, while the lowest mortality for any other operation for inversion is from the progressive ligature, 15.87 per cent., and from this to 33.33 per cent. in other operations.—*Annali Univ. di Med. e Chirurg.*, Jan. 1884.

THERAPEUTIC USES OF LOBELIA.—In a recent communication to the Société de Thérapeutique DR. FOURNIER states that he has successfully used the tincture of lobelia inflata, in doses of mlxv — xxx , in several cases of cardiac dyspnoea, and in two cases of pulmonary congestion, and with good results in the third stage of phthisis. As lobelia alone is nauseating, it should be combined with polygala. Huchard uses the following formula, which is well borne by the patient:

R.—Iodide of potassium, 3j .
Alcoholic tinct. of lobelia,
Alcoholic tinct. of polygala, aa f3ij .
Extract of opium, gr. iss .
Distilled water, ad f3viij .

Dose—Tablespoonful morning and evening in chronic bronchitis and asthma.

M. C. Paul has used lobelia and iodide of potassium with success in catarrhal asthma, mxx of tincture of lobelia to gr. viij of iodide of potassium.—*Revue de Thérap.*, March 1, 1884.

TREATMENT OF CHRONIC VAGINITIS.—DR. MARTINEAU states that he has found in his service at the Lourcine Hospital that salicylic acid mixed with powdered gum arabic and wheat flour, according to the following formula, gives good results:

R.—Salicylic acid, 3 parts.
Wheat flour, 5 "
Powdered gum arabic, 1 "

This powder is applied to the whole of the internal surface of the vagina by means of an insufflator.—*Ann. des Mal. Genito-Urin.*, March, 1884.

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SATURDAY, APRIL 12, 1884.

RECENT TESTS FOR ALBUMEN.

IN a recent discussion on albuminuria by the Glasgow Pathological and Clinical Society (*Glasgow Medical Journal*, March, 1884), DR. WILLIAM ROBERTS, of Manchester, said of the tests recently suggested that they possess extreme sensitiveness, but that they all have the serious drawback of frequently giving a reaction with normal urine. With urines that contain a large or moderate amount of albumen, the reaction is quite unmistakable; but with such as contain but a small quantity, or only traces of albumen, their reactions require to be controlled by heat and nitric acid before they can be accepted as conclusive. He further found that the old tests—heat and nitric acid—but especially the heat test, when performed with certain precautions, present a delicacy, a certainty of action, and freedom from fallacy which render them distinctly superior to any of the new tests.

Serum albumen and globulin, the two known morbid albumens in the urine, are what we seek to recognize. This being the case, says Dr. Roberts, any test which requires strong acidulation with an organic acid is open to the objection that it precipitates mucin, the essential constituent of mucus, which appears to be present in larger or smaller quantity in all urines. This fact, he says, throws out the tungstate, mercuric iodide, and the ferrocyanide of potassium.

The best test for mucin, according to Dr. Roberts, is concentrated solution of citric acid, which should be used as nitric acid by Heller's method. When a solution of citric acid is thus overlaid with urine, an

opalescent zone makes its appearance between the two. Acetic and lactic acids are less suitable, because too light to sink to the bottom of the tube; but acetic acid, if mixed with one-third its bulk of glycerine, acquires a density sufficient for the purpose.

The *heat test* for albumen is performed by Dr. Roberts as follows: Ten cubic centimetres, or three fluidrachms, of urine are placed in a long test-tube, so that it will form a column of two or three inches. To this is added a single drop of acetic acid. The upper half of the column is then heated to brisk boiling. If albumen is present, even in minimal quantity, the upper, boiled portion of the column will show opalescence, in contrast with the lower half, which remains unchanged. If the urine be alkaline, it should be carefully neutralized by adding successive drops of acetic acid until litmus paper shows a faint acidity, and then the final single drop of acid is added before boiling.

Even if the urine possess its natural acidity, and be turbid from lithates—which, of course, should be filtered off or allowed to subside—it is better to add a drop of acid if it is desired to bring out the maximum sensitiveness of the boiling test. By using this small and definite quantity of acid the mucin reaction is avoided, as well as the risk of preventing the precipitation by the use of too much acid. In this manner, Dr. Roberts says, albumen may be detected in a watery solution which contains only one part in 250,000! Surely we need no more delicate test than this.

He does not tell us, however, how to avoid the errors which may arise where comparatively large amounts of albumen are present, but where, in consequence of its previous combination with an acid or alkali, there is formed an acid-albumen or an alkali-albumen, neither of which is precipitable by heat. This error can only be thoroughly guarded against by using nitric acid, according to Heller's method, or, better, Dr. Roberts's own acid-salt solution.

With regard to the nitric acid test, Dr. Roberts says that it is necessary to wait thirty or forty minutes before the utmost delicacy of the test is exhausted, and that the faint hazy zone, which is only fully developed at the end of thirty minutes after the addition of the acid, is just as certain a sign of the presence of albumen as a zone that develops immediately, or after the lapse of one minute.

We confess this method of securing delicacy by the acid test is new to us. We had supposed that to wait beyond a minute or two for the development of the white zone was fatal to the value of the test; for it is at this time that the cloudy belt of acid urates makes its appearance, while anyone who has had much experience with Heller's test knows that when

a small quantity of albumen is present it is soon dissolved by the excess of nitric acid, even where a decided zone appears at the junction of the two fluids.

In fact, while we agree entirely with Dr. Roberts as to the delicacy of the heat test, we consider the nitric acid test far from delicate, although it or the acid-salt solution is still necessary to check the heat test where considerable albumen is present but is not precipitable by heat.

Dr. Roberts also calls attention to a globulin reaction, to which attention has not heretofore been directed. It is based on the fact that this substance, which almost always accompanies serum albumen in urine, is held in solution by sodium chloride and other neutral salts always present. But when such urines are largely diluted with ordinarily pure water, the percentage of neutral salts is so reduced that the globulin falls out of solution and forms a cloudy precipitate. The test is thus applied: Fill a urine-glass or test-tube with water, and let fall into it a succession of drops of albuminous urine. In many cases, each drop, as it sinks, is followed by a milky train, and when a sufficient number of drops have been added, the water assumes throughout an opalescent appearance, as if a few drops of milk had been added to it. The addition of a little acetic acid causes the opalescence to disappear. This reaction, says Dr. Roberts, appears to be due to globulin, or, rather, paraglobulin.

It is certainly an interesting chemical experiment thus to determine the presence of globulin in an albuminous urine, but as it neither adds to nor detracts from the pathological significance of an albuminous urine, the busy practitioner is scarcely likely to make much use of this test at present.

In a very interesting communication to *L'Union Medicale*, No. 34, March 6, 1884, M. CHARLES TANRET, the discoverer of the iodide of mercury and potassium test, replies to the objections which have been made against it in common with several of the recently suggested tests for albumen, on the ground that peptones and certain vegetable alkaloids, especially quinine, are similarly precipitated by it.

In the first place, he gives the correct formula, which he says has been erroneously quoted by Dr. Tyson in his note read before the Philadelphia County Medical Society some weeks ago. It should be as follows: bichloride of mercury, 1.35 grammes; iodide of potassium, 3.32 grammes; acetic acid, 20 cubic centimetres; distilled water enough to make 100 cubic centimetres. The resulting reagent is the double iodide of mercury and potassium, the chloride of potassium being without effect.

This fluid does not require the previous acidulation of the urine to be tested. It is to be noted that the precipitate is resolvable in an excess of albumen,

but this source of error is obviated by adding an excess of the reagent. The reagent should be added as long as the cloudiness increases, and when the precipitation of the albumen is complete, its resolution is possible.

As to the precipitation of peptones and alkaloids, M. Tanret says this source of error may be avoided by simply warming the tube, or adding a little alcohol, by both of which measures these substances are redissolved, while a cloud due to albumen is permanent. On recooling the warmed tube the cloudiness, originally produced by peptones and alkaloids, returns.

As to the delicacy of the test, Tanret's original experiments proved that it would show one part of albumen in 2000 of water, but if the test-fluid is overlaid by urine, its delicacy is increased tenfold, a beautiful white disk being formed at the intersection of the two liquids.

The advantage of this test over the picric acid, which is at once equally delicate and liable to the same objections, is found in its perfect colorlessness, and the consequent more striking contrast it affords to the urine with which it may be overlaid.

RUPTURE OF THE URINARY BLADDER.

RECOVERY after rupture of the bladder is so infrequent that the case recorded by DR. R. F. WEIR, in the *Medical Record* of March 29, 1884, which illustrates the value of affording a free outlet for the urine already extravasated and that which is subsequently secreted, cannot fail to interest our surgical readers.

A laborer, twenty-eight years of age, who had urinated shortly before, was struck on the pelvis and left hip by a mass of falling earth. A slight ecchymosis of the scrotum and a spot of blood at the meatus led to the passage of a soft catheter, which gave exit to a moderate amount of bloody urine, which became clearer as it flowed. There was no evidence of pelvic fracture, and during the first twenty-four hours the instrument was used three times, and tenderness was experienced in the hypogastrium. On the following day, there was marked suprapubic dulness with tenderness, which extended four inches above the pubes and into each groin, the wall of the belly above the dulness was somewhat rigid; the ecchymosis of the scrotum and perineum was very pronounced; a soft and painful spot was detected by rectal palpation on the left side of the prostate; the urine was passed at times voluntarily, and was not diminished in amount; and the temperature was 99°. Two days subsequently, the pulse and temperature having in the meanwhile risen, and increasing tympanites, tenderness, restlessness, and disposition to vomit having appeared, a pint of bloody, but undecomposed, urine was evac-

uated from behind the symphysis by a median abdominal incision, and a rent, commencing along the left side of the roof of the prostate, was detected in the antero-lateral wall of the bladder, by means of a median perineal incision. A drainage-tube was then passed through the suprapubic incision and the laceration, and confined by a suture at the former situation as well as at the perineal wound, and a second tube was retained in the bladder through the incision in the perineum. The cavity of the extravasation and of the bladder having been washed out with a 1 to 2000 sublimate solution, the wounds were dressed with iodoform gauze. The progress of the case was most satisfactory. The tube in the bladder was removed on the third day; the patient himself withdrew the other tube on the fifteenth day, when the urine was voided by the penis, and he was discharged at the end of another fortnight.

In making the diagnosis of laceration of the bladder, Dr. Weir states that if, after the catheter has evacuated its contents, it "passes in further, giving exit, in an ebb and flow movement corresponding to the respiration, to an additional quantity of urine, and this possibly of a different depth of color from that first drawn, the pathognomonic symptom is reached," and that the rupture is intraperitoneal if the beak of the instrument passes through the upper and back part of the viscus. In the absence of this sign, dulness on percussing the hypogastrium and the iliac fossæ is an important symptom, and points strongly to extraperitoneal laceration. The dulness, which is due generally to extravasated urine, increases more or less rapidly, and does not change its position with the movements of the patient.

Dr. Weir thinks that for ruptures involving the peritoneum, laparotomy, with closure of the vesical wound by means of sutures, is indicated, but that extraperitoneal rents should not be closed. In regard to this point, our own opinion is that sutures should be employed in all cases in which the laceration is accessible, and that the advice of Stein, that the lips of the rent in the bladder should be sewed in the abdominal wound, is injudicious, since, in the event of recovery, it will give rise to partial retention of urine.

THE REPORT OF THE GERMAN CHOLERA COMMISSION.

WE published in our last issue the full text of Dr. KOCH's sixth report upon Asiatic cholera, in which are contained some facts worthy of special note.

The first of these is the emphatic declaration that the bacilli found in the intestines of cholera patients are parasites belonging peculiarly to cholera, and that they are the cause of cholera. It is true, inoculation-experiments have failed with cholera bacilli; but, according to Koch, the demonstrative force of

the facts above given is not weakened, as the same phenomenon meets us in other infective diseases, including leprosy and enteric fever.

The second is that the bacilli of cholera possess peculiar characters by which they can be distinguished with certainty from other bacteria. Thus, they are always somewhat curved, suggesting the shape of a comma, and sometimes they are almost semicircular. In pure cultures, these curved bacilli often give rise to S-like forms, and to wavy lines of varying length, the former of which correspond to two individuals, the latter to a number which have remained attached after proliferation. They possess, also, very active movements. In gelatine they form colorless colonies, which at first look as if they were composed of glittering fragments of glass. Gradually, these colonies cause the gelatine to melt, and then spread themselves out to a moderate extent; and by this peculiar appearance they are distinguished with great certainty from other colonies of bacteria.

Another important fact, consistent with what is known of the etiology of cholera, is that when the linen of cholera patients, after having been soiled by their dejections, has been kept for twenty-four hours in a moist state, the cholera bacilli are found to have multiplied in the most extraordinary manner. Hence the fact that the linen of cholera patients has so often proved the cause of infection. On the other hand, the bacilli die off, after drying, more quickly than almost any other form of bacteria—as a rule even after three hours' drying, every vestige of life has disappeared. This explains the fact that infection so seldom follows upon direct contact with cholera patients.

The same comma-like fungi were not found in any of a large number of similar, but not identical, conditions, such as dysentery and enteric catarrh. They were found to be confined to the bowel, having been only twice recognized in the vomit. They first appeared with the commencement of the disease, being few in number, but increasing as the attack culminated and diminishing as it declined.

Since it seems certain that the cholera bacillus enters the system through the stomach, and since it cannot live in the normal stomach, the question naturally arises what conditions permit its transmissibility through the stomach into the intestine, and there cause the disease. These as yet are undetermined; but it has been observed that those are especially liable to cholera who are suffering with indigestion. Such a cause as this is reasonable, and the supposition accords with our experience in other diseases. It is also conceivable that some form of persistent condition, other than that of the spore, exists, in which the bacilli can remain alive for weeks in a dried state, and in which they are capable of resist-

ing the destructive action of the gastric juice, but from which they can be developed when mingled with intestinal fluids.

VAGINAL HYSTERECTOMY.

PROFESSOR MUELLER, of Bern, has recorded four successful cases of removal of the carcinomatous uterus by the vagina, in the *Wiener Medizinische Wochenschrift*, No. 8, 1884, by a method which differs in several essential particulars from the operations heretofore practised.

With a view to avoid hemorrhage, he, in the first place, compresses the abdominal aorta with the fist, which is, as a rule, easily done, the walls of the belly being relaxed and thin in this class of subjects; and, secondly, preserves intact the large vessels by limiting his incisions to the anterior and posterior walls of the vaginal vault, thereby not interfering with the sides, in which the vessels ramify, that under other methods require many ligatures. The uterus having been retroverted through the posterior opening, provisional threads are cast around the broad ligaments, and the undivided vaginal walls, when the uterus is split vertically into two symmetrical halves. The resulting pedicles, which consist of the broad ligaments and the vaginal walls, are now tied with double threads, and divided near the two halves of the uterus, which are then removed. The vessels of the stumps, three or four in number, are next tied, whether they are bleeding or not, when the compression of the aorta is relaxed, and any other vessels of the stumps or of the vaginal wound are secured. After careful cleansing of the wound with a solution of corrosive sublimate, the stumps are permitted to retract, the ligatures are cut off on a level with the vulva, and a carbolized tampon is placed in the vagina. The latter is removed at the expiration of twenty-four hours, and the parts douched several times a day with the sublimate solution. The ligatures come away in the third week.

The novelty of Mueller's operation consists in the means employed to prevent hemorrhage, in not circumscribing the cervix with a complete incision, and in the vertical division of the uterus. The preservation of the lateral limits of the vaginal vault renders retroversion of the uterus somewhat difficult, but this is more than compensated for by the avoidance of bleeding. Hemorrhage does not attend the splitting of the uterus, as it has been guarded against by provisional ligation of the pedicles.

The merits of this procedure will be the more readily appreciated if it be compared with the operations of Schroeder and Fritsch, which were described in *THE MEDICAL NEWS* for December 15, 1883. Fritsch, who does the first cutting at the sides, states that he has sometimes had as many as twenty ligatures on a single side, and, as bleeding is one of the

great dangers of vaginal hysterectomy, the method which best prevents it is, other things being equal, the one to be preferred.

EXTRAARTICULAR WIRING OF THE FRACTURED PATELLA.

IN the issue of *THE MEDICAL NEWS* for December 8, 1883, we called attention to the risks of approximating the fragments of a broken patella with silver wire. The risks, it will be remembered, are due to opening the joint, which suppurated in nearly one-fourth of all the cases in which the procedure had been resorted to, and which led to a mortality of nearly six per cent. It was for these reasons that we ventured to express the opinion that antiseptic suture of the patella should be restricted to old cases, or those in which ordinary measures had failed to bring about union.

DR. VAN DER MEULEN, of Utrecht, has recorded in the *Lancet* for March 22, 1884, three cases of recent fracture successfully managed with the wire suture without opening the knee-joint. In all of the operations, which were performed on the eighth, ninth, and twenty-fifth day after the accident, he found, after removing the clots of blood from between the two fragments, that a thin, but distinct, membrane existed between the posterior edges of the fragments, which acted as an effective barrier between the fragments and the cavity of the joint. By taking care to depress this membrane with a probe—the membrane being partially organized clot, or rather young connective tissue—while the canals are being drilled and the suture inserted, the cavity of the joint is not opened, and the risks of the ordinary procedure are averted. In one case the operation had to be repeated on account of refracture, but the final result was very good. In the remaining cases the functions of the joint were intact.

While Dr. Van der Meulen is to be congratulated upon his demonstration of an occluding membrane and upon the operation based upon its presence, which he has devised, we fancy that the generality of surgeons will demand a favorable experience with the method founded upon several hundred cases, before they will resort to it in recent fracture in preference to more simple measures.

IN the issue of *THE MEDICAL NEWS* of last week it was incorrectly stated that Dr. Packard had lost his case of ligation of the primitive iliac artery. The successful cases were those of Kümmell, McKinley, Mowret, and Packard for hemorrhage, Bickersteth, Caldas, Cock, Garviso, Hey, Lange, Luzenberg, A. B. Mott, V. Mott, Peace, Richter, Salomon, Sands, Schoenborn, and Syme for aneurism, and Guthrie for a pulsating tumor simulating an aneurism.

WE hope the members of the profession in Philadelphia will not be led incautiously to give their approval to a series of impertinent questions with regard to vivisection which are being distributed by the so-called Anti-vivisection Society. The signing of the postal card upon which the questions are printed, binds the signer to favor certain legislation with regard to vivisection which is altogether unnecessary and uncalled for.

REVIEWS.

A MANUAL OF OBSTETRICS. By A. F. A. KING, M.D., Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Columbian University, Washington, D. C., and in the University of Vermont, etc. Second edition. 12mo. pp. 338. Philadelphia: Henry C. Lea's Son & Co., 1884.

In the preface to his first edition, the author speaks of his little book, as "an outline of the rudiments and essentials of obstetric science," and offers it as a groundwork for the obstetric student, by which he may be "prepared to understand and assimilate the extensive knowledge and classical descriptions contained in larger and more elaborate text-books." He confesses to have drawn very largely from the three well-known college text-books of Playfair, Leishman, and Lusk, and his manual may be regarded as an analysis of the usual teachings of obstetrical lecturers. The second edition corrects some of the opinions of the first, and is an improvement upon it, although only enlarged by a few pages. The fact that the first edition was so soon exhausted, shows that the work is popular, and that there is a demand for this style of treatise; one which can be carried about and referred to when a busy practitioner is desirous of refreshing his memory upon essential methods, etc., and has not time to consult a more elaborate treatise. As a condensation of knowledge, the book is quite a success, as the author has the faculty of saying a good deal in a few words, and he generally selects the best line of medication for treatment. Any one wanting an analysis of obstetric science, will do well to procure this little volume. A country doctor might often be made the wiser by referring to it on the road, when he might not be able to carry a more complete treatise.

SOCIETY PROCEEDINGS.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, March 25, 1884.

THE VICE-PRESIDENT, CHARLES MCBURNEY, M.D.,
IN THE CHAIR.

DR. A. C. POST presented a patient upon whom he operated two weeks ago last Friday for

OCCLUSION OF THE RIGHT NASAL CAVITY FROM DEVIATION OF THE SEPTUM.

There was at the same time a periostosis of the nasal process of the superior maxillary bone. He separated

the side of the nose from the cheek, and turned it over in order to get access to the obstruction, and then removed the protruding part of the septum and some of the superfluous superior maxillary bone. The nose was then turned back and secured, and the traces of the incision would not be sufficient to attract the attention of casual observers. The occluded nostril was quite free. It was probably a congenital deviation.

DR. MCBURNEY remarked that such deviation usually occurs to the other side.

DR. H. B. SANDS had performed the same operation, and found that it was very much facilitated by the separation of the ala nasi. He did not open the septum, but removed the projecting cartilaginous swelling, and some of the bony growth situated along the nostril, and the patient recovered without deformity.

DR. POST said that he had in several cases divided the columna nasi, where the deviation did not extend so high up, which facilitated the operation very much, and by closing the columna no deformity remained.

DOUBLE RUPTURE OF THE TENDON OF THE QUADRICEPS FEMORIS.

DR. MARKOE presented, in behalf of Dr. Weir, a patient, seventy-two years of age, who had ruptured the quadriceps tendon of both patellæ. There was immediately above the upper margin of the patella the usual depression, abrupt upon both sides. The accident was caused by slipping upon a piece of ice, one knee giving way, and the other tendon rupturing almost immediately afterward. There was not only the depression immediately above the patella, but also the sharp edge on either side indicated where the aponeurosis had not been ruptured. There were, therefore, two strong fibrous bands left, which enabled him to make some extension of the leg at the time of the injury. A good deal of extravasation of blood occurred about the parts. The patient was treated by placing the limb in a straight position; a large amount of effusion took place into one knee-joint, but in the other not very much inflammatory reaction exhibited itself. The injury occurred three months ago, and the patient was able to walk slowly. Both tendons had united equally well.

FRACTURE OF THE HUMERUS AND SCAPULA, COMPLICATED WITH SEVERE INJURY OF THE ENTIRE BRACHIAL PLEXUS, FOLLOWED BY PARALYSIS.

DR. GERSTER presented a boy, eight years of age, who was run over by a wagon December 10, 1883. The exact mode of injury was unknown. It was alleged that immediately after the injury he could clinch his fist. He saw the patient for the first time ten days after the injury, and found an anæmic boy, with the pectoralis and serratus region widely suffused and discolored. The armpit was filled by a hard mass (coagulum) which caused a curious bulging of the right pectoral region. Fracture of the upper third of the shaft of the humerus was easily made out, but the lengthening of the arm with a wide displacement of the head of the humerus from the acromion accompanied by local crepitus, and also the fact that this deformity could be easily reduced but immediately reappeared, made the diagnosis of fracture of the neck of the scapula clear. There was absence of both brachial and radial pulse; there was paleness of the extremity, no œdema, but absolute

motor and sensory paralysis of all the branches of the brachial plexus. The fracture of the humerus was dressed with three pasteboard splints, but the fracture of the neck of the scapula presented no easy problem. Finally it was found that the fragments could be best retained in position by raising the splintered arm up by the bend of the elbow on a series of turns of a bandage wrapped over the shoulder of the same side, fastening all these turns by a series of turns passed around the thorax, and by a loop of bandage passed around the neck over to the other axilla. At the end of three weeks there was consolidation, with slight deformity of the humerus. The deformity was due to the necessity of lifting the shoulder by the elbow. The fracture of the neck of the scapula still showed crepitus, and therefore the bandage was continued. A pressure sore developed over the olecranon. The deltoid, triceps, and biceps showed no faradic irritability on January 15. Sensation of the skin showed a marked variability. One day it extended down to the upper part of the forearm, to disappear three or four days after up to the middle of the arm. The first nerve to show constant improvement was the musculo-cutaneous; the most tardy was the musculo-spiral. From the tenth day after the injury neuralgic pains, located directly in the palm of the hand, were felt by the patient. Pressure on the deep portion of the axilla caused intense pain up to the eighth week, when most of the large blood-clot had been absorbed. At the same time choreic, jerky contractions of both shoulders and the head commenced to be developed, which very soon yielded to the administration of Fowler's solution continued for about six weeks.

In spite of frequent readjustment of bandages and much care, it was very difficult exactly to retain the outer fragment of the scapula in a correct position; this, and the absence of a sufficient protection of callus usual at this place, resulted in a ligamentous union, with slight deformity, but good function.

In the fifth week, the hand became puffed up, reddish-blue, much colder than the other, the nails showing a deeper tinge.

By the middle of February, the deltoid, biceps, brachialis internus, and triceps commenced to respond to the will, but not to faradism, a circumstance first observed by Erb, and confirmed by Leegard and others. On February 26 they contracted on faradic irritation.

Supination and pronation were first observed on March 11, supination being less complete than pronation. On the same day, flexion of the fingers, excepting the thumb, was fully noticed.

To-day, flexion of fingers and thumb is well marked, extension very incomplete, but noticeable, and the prognosis seems to be decidedly hopeful.

The flexors respond very well to the galvanic, sluggishly to faradic, irritation. The radial pulse is still absent.

It seemed fair to conclude from the injuries observed, and the neurotic symptoms following them, that the plexus brachialis must have suffered a very severe contusion and laceration by the displaced fragments. The statement voluntarily made by the relatives that the hand could be clinched shortly after the injury, seemed to indicate that no rupture of the radial and median nerves could have taken place. No special treatment

as regards the nerve lines was instituted, attention being chiefly directed to maintaining a good general condition.

Dr. Gerster also exhibited another patient who had had injury of the radialis caused by the fall of a heavy board on the lower portion of the posterior aspect of the arm. The patient was unable to extend the limb, and there was also the characteristic paralysis of the radialis, accompanied by the flabby condition of the forearm. It was of three weeks' standing. The contusion was of the arm, above the elbow.

Dr. MARKOE related a case which was pertinent to the history of the injury and subsequent progress of Dr. Gerster's first case, occurring in a gentleman forty years of age, who was run over by a hack. Precisely how he was struck, or how he struck when he fell, it was impossible to ascertain. Dr. Markoe found fracture of the surgical neck of the humerus, which was oblique in such a manner that the upper end of the lower fragment projected into the axilla high up. He was very much disturbed to find that there was no radial pulse, and there was absolute loss of sensation and motion below the middle of the arm. The hand was blue and cold, and for twenty-four hours he apprehended the occurrence of gangrene; but this did not occur, although no brachial or radial pulse returned, and their absence had been permanent. From the time of the injury, paralysis of the muscles of the forearm was complete. Anæsthesia manifested itself particularly along the distribution of the ulnar nerve, which could be mapped out perfectly by the distribution of the paralysis, which was absolutely complete. After a time, the patient was able to make slight flexion and extension of the fingers; he has not been able to flex the thumb. The trophic changes have been precisely as usual in these cases, and the limb presented a glossy, puffy condition, and the palm of the hand, particularly, has exhibited a good deal of perspiration.

Appreciating that there was considerable displacement of the fragments towards the axilla, Dr. Markoe endeavored to try and reduce them as well as possible; but he did not dare to place any splint on the inside of the arm, lest he should increase the injury already done by the fragment, and, therefore, applied a very thin pad in the axilla, leaving the arm steadied against the side of the thorax, and supporting the elbow. The case had gone on through the history which had already been given by Dr. Gerster. In the fourth week, neuralgic pains began, which were very severe, and were referred especially to the palm of the hand, but extended along the ulnar side of the forearm down the fingers, and along the dorsal aspect of the radial side. At the present time, the bone is not firmly united.

From the lack of support upon the inside of the arm one unfortunate result had occurred, namely, the pectoralis and latissimus had drawn the fracture toward the chest, and pressure upon the parts in the axilla still existed to a considerable extent. Although the symptoms of paralysis had modified, Dr. Markoe was still at some loss to know what to do further in the treatment of the case. He had used faradism only, but proposed to use the galvanic current after further trial of the faradic. Dr. Weir Mitchell had obtained remarkable results in the treatment of neuralgic pains so common in such cases by the use of stimulating applications to the parts

to which the nerves are distributed, and had applied blisters successfully. Dr. Markoe had used strong liniments in his case for the relief of neuralgic pains, and with considerable benefit.

DR. POST had seen cases of traumatic paralysis which had been promptly benefited by the application of moxas, either along the course of paralyzed nerves or near the seat of injury. He had also seen marked relief follow the use of the actual cautery.

SUBCORACOID DISLOCATION OF THE HUMERUS; PARALYSIS OF THE SERRATUS MAGNUS; ARTHROTOMY.

DR. GERSTER also presented a patient, Jennie M., twenty years of age, who was thrown violently against a tub, and sustained a subcoracoid dislocation of the humerus. The nature of the injury seems to have been overlooked by some physicians who saw the patient shortly after the accident, since they treated it with liniments and electricity. Seven weeks after the injury the patient came under Dr. Gerster's care at the Mount Sinai Hospital. The diagnosis of dislocation complicated with marked paralysis of the serratus of the corresponding side was readily made out. Reposition did not offer the least difficulty, but the weight of the extremity alone was sufficient to cause the reappearance of the dislocation. The reduced humerus was kept in a normal position for five weeks by means of an ample plaster-of-Paris dressing enveloping the arm, shoulder, and thorax. When it was removed it was found that the tendency to the reappearance of the dislocation was unchanged, wherefore operative relief was sought.

Arthrotomy by the anterior incision was performed on December 11, 1883. It was found that the inner aspect of the joint capsule, the side facing the axilla, was abnormally relaxed, and therefore a piece, one inch long and half an inch wide, was excised from it while the arm was forcibly rotated outwards. A counter-incision was made into the posterior part of the capsule for drainage, and capillary drainage by a fascicle of catgut strands was established. The anterior wound was closed by sutures. The autopsy had revealed that in a state of dislocation the distance between the glenoid cavity and the apex of the head of the humerus was fully one inch.

Six hours after the operation very alarming septic fever set in, with a temperature of 103° F., and great sickness and dejection. Although no local signs of disturbance were visible, Dr. Gerster deemed it prudent to remove the stitches, open up the wound, and seek the cause of the infection. Among the seven catgut ligatures applied, three were found to be much thickened, turbid, and infiltrated with and surrounded by an areola of pus. The remainder of the wound was found to be normal, the rest of the ligatures being slightly thickened but transparent. Suspecting the quality of the catgut used for the capillary drainage of the joint, the fascicle was likewise removed and replaced by a rubber drainage-tube. The wound was treated openly. The temperature fell to the normal, and the case progressed favorably. The tube was removed at the end of the second week, and the wound healed at the end of eight weeks. Healing was retarded by an attack of erysipelas commencing from the opening made for the drainage-tube at a time when healing was nearly complete.

The function of the joint is now fair, but promises to improve and become normal, since mobility of it is con-

siderable, although very little orthopædic treatment had been employed.

FRACTURE OF THE PATELLA.

DR. F. LANGE presented a patient, a man sixty-two years of age, who illustrated the usefulness of a limb after fracture of the patella, in spite of a distance of three inches between the fragments. The patient had had fracture of the patella several times, and the last time the injury occurred three or four years ago, and there was also rupture of the crucial ligaments, as evidenced by hyperextension of the knee-joint and great lateral mobility. The plan of treatment which Dr. Lange adopted was similar to that recommended by Dr. Little, and the immediate result was very good; but after a time the gap between the fragments began to increase and afterward became quite extensive, and measured three inches; and yet the patient was able to walk quite well, could go up and down stairs, and could extend the limb very well.

CHOPART'S OPERATION.

DR. MCBURNEY presented a patient with the following history: Wm. Burke, aged 33, was admitted to Bellevue Hospital, on December 25, 1883, suffering from severe frost-bite of the extremities of both feet. The feet were treated with soothing applications, such as charcoal poultices, up to January 17, 1884; on that day I operated upon both feet: from the right removing the toes only at the metacarpo-phalangeal articulations; on the left doing Chopart's amputation at the medio-tarsal articulation. The foot and leg were first thoroughly cleansed with a solution of iodoform in ether, and irrigation with bichloride solution, 1 to 1000, was kept up throughout. Catgut ligatures were used, and a continuous catgut suture applied to the skin wound. A single bone drainage-tube was passed through at the base of the flap from one side to the other. The wound was covered with protective, dusted with iodoform, and enveloped in carbolized gauze and cotton, *great care being taken to force the astragalus and os calcis into extreme flexion*. To aid this effort, a pasteboard splint was applied to the back of the leg and to the under surface of the stump outside of the dressing, and firmly bandaged so as to maintain the position of forced flexion. The highest temperature reached by this patient after operation was 100° on two evenings.

The first change of dressing was made fourteen days after operation at my clinic. The drainage-tube had disappeared, and the wound was completely healed without a drop of pus. At one point was a minute pin-head point of granulation.

Some months ago I reported to the Society a case of Chopart's amputation, and in the discussion I expressed the opinion that sufficient attention was perhaps not paid after this operation to the position given to the stump. If the stump is left to itself, the powerful extensor muscles found on the back of the leg will inevitably draw the posterior end of the os calcis upward, and then allow the cut tendons of the anterior muscles to attach themselves too far up on the astragalus. I wish to call the attention of the Society to the fact that this patient can flex his short stump very freely, and that when he walks the stump has no tendency to point downwards.

DR. CHARLES MCBURNEY then read a paper on
CASES OF KNEE-JOINT EXCISION, WITH REMARKS.

(See page 409.)

DR. C. T. POORE had excised nine knee-joints in children varying from four to sixteen years of age, and had had good results except in two cases. In one of these the patient died six months after the excision from abscess from disease of the dorsal vertebrae bursting into the lungs; in the other, the child would probably die from chronic brain trouble.

In the first case the consolidation of the bone was firm at the time of death; in the second, union is not firm.

In two cases he had had the same secondary complications. In one case necrosis of a small portion of the external aspect of the femur, in another of a portion of the external head of the tibia. Recovery took place in both patients after extraction of the sequestrum.

He had also experienced trouble from collection of pus in the synovial sac above. In some of his cases there had been more shortening than in Dr. McBurney's case, but he thought part of it was due to atrophy of the limb from disease. He did not think the bad issue in the two cases was due to the operation, but to the general condition of the patient. He had not seen very high temperature in any of his cases after operation. He always suspended the limbs in the after-treatment, because he thought he could take care of his patient better in this way, and it was more comfortable for them.

DR. MCBURNEY would like an expression of opinion as to the importance of wiring the bones together or introducing nails. He had reached the conclusion that it was not important. It seemed to him that the introduction of wires or nails, even with careful antiseptic precautions, had considerable disadvantages, as shown in several cases in which he had operated. The disadvantage being constant irritation where the wires have been brought out through the skin. The wires, however, might be buried, and the chances taken with reference to their exciting irritation. He thought that the leverage of the leg was too great to allow small wires in soft bones to resist any strain upon the parts, and even where nails had been introduced, as he had understood, they had become loosened long before any strong adhesions had taken place between the bones, except, perhaps, in young patients.

DR. LANGE thought that in using nails coaptation of the surfaces was much more intimate than it would otherwise be, and he also thought that this intimacy of coaptation secured a greater certainty of bony union than by resorting to any other method of uniting the bones. He believed, from the results of those who have resorted to this method more extensively, that the coaptation is so accurate that bony union is secured in a comparatively short time.

He had found in the fourth week after the operation that the nails were somewhat loosened, but still they were so fixed that it required considerable force to pull them out, and even at that period they contributed somewhat to fixation. In case you are obliged to change the dressing the coaptation of the bones which has been secured by nails or wires remains during the change of the dressing much more accurate than when they are treated by measures which keep the coaptation

less firm and accurate. This question perhaps is not so important now as formerly, since we are accustomed to use permanent antiseptic dressings where the limb may remain untouched for months, or even longer.

With regard to the advisability of exsection of the knee-joint in such young patients, there is always so much shortening of the limb that he was inclined to the opinion that where exsection of the knee-joint in a child can be avoided it is well to do so, and try to repair the injured bones without opening the joint and searching for tubercular disease, if altogether the case is such as to make this plan of treatment practicable. He had succeeded in this way in one case. In other cases the disease was so extensive that a more extensive operation was necessary. In one case the result was a very good one, and he thought that a better chance was given for the development of the limb than would have been afforded if exsection had been performed. So far as he knew, the growth of the limb might be shortened six or eight inches, so that entire disfigurement of the patient occurs in this manner.

With regard to prognosis, he thought it was much better in those cases in which ankylosis exists than in those in which fungoid disease is present. He had tried in some cases to obtain more free access to the synovial pouch by making a longitudinal incision as high up as the extension of the articular surfaces. The more fully the parts are exposed and search is made for diseased synovial membrane, the more is one apt to find that small abscesses exist in the capsule and about the joint where cheesy foci exist, which explain the fistulae that are persistent.

DR. L. M. YALE referred to a case which had a bearing upon the question of bony union. It occurred about twenty years ago, and was operated upon by the late Dr. Enos, with the result of obtaining apparently bony union. Some time after leaving the hospital, the patient fell, and was brought back, when it was found that the cicatrix had torn like a piece of cloth, and the bones had separated at the line of excision. On examination it was found that there had been partial union of the bone, as shown by what might be called stalactites running from one cut surface into the other, but at the same time the flat surfaces of the bones had united in some places by these bony prolongations, while in other places it had not. Dr. Yale replaced the limb as nearly as possible in the straight position, and the boy made a good recovery with somewhat greater flexion than existed before the receipt of the last injury.

THE NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, April 3, 1884.

THE VICE-PRESIDENT HORACE T. HANKS, M.D.,
IN THE CHAIR.

DR. H. J. GARRIGUES read a paper on

THE REMOVAL OF THE PLACENTA.

The correct title of the paper, he said, was "The Removal of the After-birth," which term included both the membranes and the placenta, and it was also more appropriate from the fact that he did not intend to treat on this occasion of the delivery of the placenta in cases of abortion.

It was now thirty years since Credé had published his views on the treatment of the third stage of labor, and since this original publication he had repeatedly reiterated his conviction of their soundness. His idea was that the placenta should be removed, not by means of traction from below, but of pressure from above. Dr. Garrigues then described the details of Credé's method. He advised that the hand should be placed on the abdominal walls over the uterus after the delivery of the child, and that when it was felt to contract it should be firmly grasped by both hands, with the thumbs in front; when, as soon as the contraction had reached its maximum intensity, the whole organ was to be pressed downward in the direction of the hollow of the sacrum. One contraction was rarely sufficient to expel the placenta. Sometimes this was accomplished at the third contraction, but more usually it was not until the fourth, and it was an error to make pressure between the contractions.

Of late years some of the German authorities had raised objections to the Credé method; their chief criticism being that it was liable to give rise to retention of the membranes. This objection, he thought, was entirely groundless. During the last eight years he had practised the method constantly, and when he was appointed to the Maternity on Blackwell's Island, he introduced it at that institution. He could only say that it had given perfect satisfaction, and that he had never seen any bad results from it whatever. During the last two terms of service at the Maternity Hospital there were 408 confinements. Two of these were cases of abortion, in which the placenta was adherent, and in both he removed it by means of the dull wire curette and forceps. In 6 cases beside these there was retained placenta, and in 6 others the whole or a portion of the membranes was retained. In 6 out of 400 cases, therefore, the Credé method failed to deliver the placenta, a percentage of only $1\frac{1}{2}$. In 4 of the 6, however, there was an abnormally intimate connection between the placenta and the uterine walls; so that there were in reality only 2 cases out of 400 in which it failed, or one-half per cent. In these the placenta was not adherent, but simply retained. True adherent placenta, such as occurred in the 4 cases just mentioned, was very rare; the so-called retained placenta being due, as a rule, merely, to improper treatment. In 6 cases, or one and one-half per cent., more or less large shreds of membrane were retained. In order to remove these, the whole hand was introduced into the cavity of the uterus in one instance; but in the rest this procedure was unnecessary. Credé said that he had not observed any bad effects from the retention of portions of the membranes, and advised that they should be allowed to remain undisturbed. Dr. Garrigues, on the other hand, had seen very serious results follow the retention of membranes, such as alarming post-partum hemorrhage; and, therefore, he thought there could be no question that it was best to remove any retained portions. Where this was necessary, disinfection should always be practised, and he had formerly used a five per cent. solution of carbolic acid for the hands, and a two per cent. solution for washing out the uterus afterwards. Since October, 1883, however, he had employed bichloride of mercury solution, of the strength of 1 to 2000, exclusively.

The great utility of the Credé method, it seemed to him, was due to the fact that it was strictly modelled on the regular course of nature, so that its effect was simply to assist the normal process of completing the act of parturition. After the powerful efforts kept up by the uterus during the second stage of labor, there was, as a rule, some atony of the organ resulting. There was thus, at this time, a call for artificial aid in getting rid of the placenta, and this needed stimulus to spur the uterus on to renewed action was supplied by the compression and pressure applied in the manner Credé indicated. Contraction of the uterine muscles was thus brought about, and Dr. Garrigues now described the two groups of bundles entering into the muscular structure of the organ, the action of the first of which (the concentric ones) was, he said, to bring the fundus towards the os, and of the second (the bundles which had attachments upon the bony pelvis), to draw the uterus down into the pelvic cavity, at the same time that they tilted the fundus forward and the cervix backward. He then went on to say that by means of the compression of the fingers and thumbs of the accoucheur the uterine walls were brought near together, and that the pressure downwards on the fundus drove the organ towards the hollow of the sacrum, while the contact of the placenta against the cervix also tended to open the os.

By shortening the third stage of labor, Credé's method had a direct tendency to prevent *post-partum* hemorrhage. In the four hundred cases referred to, there were but two instances of such hemorrhage of any severity, although in two others there was a slight loss of blood above the normal. In all these cases the hemorrhage occurred before the expression of the placenta was made, and in not a single instance afterwards. When properly performed, the procedure was, undoubtedly, the best means of preventing post-partum hemorrhage.

Inversion of the uterus, which was facilitated by traction on the cord, was promptly counteracted by the Credé method. He had even known avulsion of the organ to be caused by traction. In some cases the *vis a tergo* was so great, when pressure was properly applied, as to expel the whole after-birth completely outside the genitals; and where this did not occur, it was recommended that before withdrawing the placenta the membranes should be twisted into a kind of string. As a rule, however, there was no necessity for introducing the fingers into the vagina (which was liable to be followed by much more serious consequences than before the delivery of the child), and the avoidance of this constituted a part of the modern antiseptic treatment of labor. Dr. Garrigues explained that, contrary to the usual practice on the Continent and in many parts of the United States, he placed the parturient woman on the left side during the second stage (which, he believed, was attended by several important advantages), but said that after the delivery of the child he had the patient turned upon her back, which was the most advantageous position for the delivering of the after-birth.

In Credé's last published communication he had reported that in two thousand cases of labor the average duration of the third stage was four and a half minutes; but in his own cases the average was somewhat greater. It was to be remembered, however, that in Europe the medical attendant in charge at lying-in hospitals re-

tained his position for a number of years, and, consequently, had the opportunity of becoming very expert in all the manipulations incident to the conduct of parturition, while in the Maternity on Blackwell's Island the resident accoucheurs are changed every two months. But, in his opinion, it was altogether immaterial whether a few minutes more or less were occupied in the third stage of labor. The important point was, that from the time of the delivery of the child the uterus should be kept in a contracted condition, and that expression should be made only during the occurrence of the special contractions.

Dr. Garrigues then went on to say that, as the originality of Credé's method had been impugned in certain quarters, he had taken the trouble to look over all the old obstetric authorities that were to be found in the library of the New York Hospital, and found that these could be arranged in three classes. The first spoke of traction only in the delivery of the placenta; and the second, comprising a very considerable number of distinguished names, advised rubbing and pressure over the fundus, through the abdominal walls, in connection with traction on the cord; while a third class, composed of Johnson, Sinclair, and Murphy, who had all been assistants at the Dublin Lying-in Hospital, especially advocated friction and pressure with the hand on the abdomen, which, they claimed, was often sufficient for the delivery, though at the same time they advised traction on the cord. So, therefore, while many English writers, and especially those of the Dublin school, are undoubtedly entitled to some credit in the matter of uterine pressure, it was reserved for Credé to enunciate distinctly the following important points:

First. That uterine pressure is applicable in all cases.

Second. That the uterus should be grasped from all sides.

Third. That it should be squeezed with decided pressure downwards and backwards, in the direction of the pelvic brim.

Fourth. That the cord and placenta, as a rule, should never be touched until after the expulsion.

Fifth. That the fingers should not be introduced into the genital canal.

He then enumerated the advantages of the Credé method as follows:

First. Its certainty of action.

Second. Its influence in exciting uterine contraction.

Third. The prevention of hemorrhage.

Fourth. The prevention of hour-glass contraction of the uterus.

Fifth. The prevention of uterine inertia.

Sixth. The prevention of avulsion of the cord or uterus.

Seventh. The prevention of inversion of the uterus.

In regard to the disadvantages of the old method, he thought it was unnecessary to speak, as they are just the opposite of the points enumerated. There was still another plan of treating the third stage of labor, which was usually known as the Strassburg method, and which consisted simply in the absence of any kind of interference whatever. This had been tried as an experiment, and the results in one hundred cases reported were as follows: In twenty-four cases the placenta came away within the first half hour; in twenty, within the second half hour; in twenty-five within two hours; in eleven,

within three hours; in nine, within four hours; in five, within five hours; in three, within six hours; in two, within eight hours; and in one, within twelve hours. In every instance the fetal surface of the placenta presented first. In two cases hour-glass contraction of the uterus occurred, and in one there was a very decided putrid odor. Dr. Garrigues said that he failed to see a single advantage. The process was not even a natural one, since the recumbent position was unfavorable for the expulsion of the placenta. Among uncivilized nations it would seem altogether likely that the parturient woman, if recumbent during the second stage of labor, would change her position after the birth of the child, and Dr. George J. Engelmann, of St. Louis, in his exhaustive study of parturition among savage peoples, stated that the delivery of the placenta usually followed soon after that of the child, but, if it did not, massage over the abdomen was frequently resorted to. Even among animals it had been observed that an effort was sometimes made to assist nature, and Dr. Sussdorf, in his interesting account of the labor of an elephant, related that after the birth of her offspring, the mother pressed her abdomen with great force against the stake to which she was chained, in order to facilitate the delivery of the after-birth.

In the four hundred and eight labors at the Maternity to which he had referred there was no case of hour-glass contraction, and statistics showed that this occurred much more frequently in cases in which no compression was used than in those treated by the Credé method. In conclusion, Dr. Garrigues said that it was scarcely necessary to point out that it was highly dangerous to leave a placenta in position until it began to stink. While the prudent accoucheur would not allow a retained placenta to remain too long, there was, as a rule, however, no need of haste in making active interference. All that was required was that he should abridge the third stage of labor only to such an extent as to keep his patient from the dangerous consequences liable to ensue from too prolonged inaction.

DR. ALEXANDER HUNTER said that he fully endorsed the conclusions of the author of the paper, and that he would speak upon only one point, which was, the desirability of commencing the uterine pressure just before the delivery of the child. He believed that the uterus should always be allowed to expel the fœtus from itself as well as from the vagina, unless the child is in danger of suffocation. By this early resort to compression the delivery of the placenta was very much shortened, and the danger of post-partum hemorrhage diminished.

DR. ALEXANDER HADDEN thought that intelligence and coolness on the part of the accoucheur were necessary for the proper treatment of the third stage of labor, and that serious consequences were very liable to result from bad management. Among these might be mentioned hemorrhage, septicæmia, and a condition of subacute inflammation. Catarrhal troubles, which rendered the patient an invalid for years, and upon which much of the gynecologist's labor depended, frequently originated, he believed, in this way. During the last twenty-five years he had attended some twenty-three hundred cases of labor, and he had never lost sight of the importance of attending with great care to the delivery of the after-birth. In his last thousand cases.

there had been but one death from post-partum hemorrhage, and this fatal result occurred in a patient who was the subject of *purpura hemorrhagica*. In the removal of the placenta he had been accustomed to depend partly on pressure and partly on traction on the cord, always taking care to see that the uterus was properly contracted (with a distinctly globular outline), and watching the patient for at least an hour and a half after delivery.

As to the production of inversion of the uterus by traction on the cord, as claimed by Dr. Garrigues, he confessed that he was somewhat sceptical. He had always been accustomed to employ traction, though invariably in a gentle manner, and the only case in which he had ever seen any attempt at inversion, was one in which this occurred before any effort at all, by traction, or otherwise, had been made to deliver the placenta. There was profuse hemorrhage, and a cup-shaped depression was noticed in the top of the uterus through the abdominal walls, while through the os the fundus could be felt. Carrying his hand up into the uterus, he restored the partly inverted organ, but found great difficulty in getting the fundus to retain its normal position. The circular fibres of the uterus seemed entirely relaxed, while the active contraction of the longitudinal fibres tended constantly to force the fundus down. By the persevering use of ice and pressure, however, he finally succeeded in securing the normal contraction of the entire organ; up to that time he had believed that traction might cause inversion, but since seeing this case it had seemed to him probable that the inversions which had been attributed to traction might, in reality, be due to entirely different causes. In this instance he believed that the placenta was attached to the fundus, and that the effort to expel it had tended to cause inversion of the uterus. Attachments in this position, he thought, were rare.

DR. MARY PUTNAM-JACOBI believed that the Credé method was the only one that ought to be used at the present day, and that it would be superfluous to make any comment on the views expressed in the paper, which were undoubtedly the correct ones. There were, however, one or two theoretical suggestions which she would venture to throw out. The expulsion of the placenta was something which was being prepared for, all through the later weeks of utero-gestation, by the formation of thromboses. Up to the time that the uterus was expected to contract, the circulation of the organ was predominantly venous, since this was most appropriate for its growth. But now, however, it became of an arterial character, as arterial blood alone could furnish the stimulus necessary to produce muscular contraction. Hence the venous blood gradually became cut off by the formation of thromboses at the edges of the placenta, and by the migration of leucocytes, which tended to block up its passage. In cases in which there was a failure of uterine contraction, therefore, it was natural to suppose that there had been an abnormal continuance of the venous circulation, and that, consequently, the necessary arterial stimulus was lacking. The Credé method was entirely philosophical, because the pressure tended directly to diminish the amount of venous blood, and thus assisted nature in continuing the process which she had already begun.

DR. PAUL F. MUNDÉ said that he had, unfortunately,

come in too late to hear the paper, but he would nevertheless give expression to a few thoughts which occurred to him in connection with the subject of which it treated. When, thirty years ago, Credé had advanced his views on the delivery of the placenta, it was generally believed that the true method had at last been reached, and that its adoption would entirely do away with all the ills incident to the third stage of labor, particularly the occurrence of post-partum hemorrhage. These anticipations had, however, not been altogether realized. He himself had been taught the Credé method in Germany, and had constantly practised it for a number of years. As a rule, he had been satisfied with it, but occasionally he had found that too rapid expression of the placenta gave rise to uterine inertia and the retention of more or less of the membranes. He had come to the conclusion, therefore, that it was best not to hurry up matters too much, but to allow plenty of time for nature to act. Beginning with the delivery of the child's head, he was in the habit of placing the hand on the abdomen and making gentle friction over the fundus. Before the expulsion of the placenta the latter would be found to reach as high as the umbilicus; but if the uterus extended only half-way between the symphysis pubis and the umbilicus, and was of a well-marked spherical shape, we could be certain that the placenta was no longer in the cavity of the organ. Delivery of the after-birth was not always possible by the Credé method, for in some cases, while the hardness, lobular outline, and reduced size of the uterus, as felt through the abdominal walls, indicated that it was no longer in its cavity, neither did the placenta appear at the vulva. In such cases it was retained in the cervical cavity, and in these instances the cervix was usually of exceptional length. Here it was advisable to make slight traction on the cord, or, what was better, to introduce the fingers, or even the whole hand, into the vagina and withdraw the placenta. If the ordinary precautions of cleanliness were used, he did not think that the latter procedure was attended with the slightest danger to the patient. As he had before remarked, if the placenta were removed too rapidly, it would be stripped, and the membranes left in the uterus, and he thought it was necessary, therefore, that Credé's excellent directions should be followed closely. If properly carried out, the pressure would cause contractions which would result, first in the detachment, and then in the expulsion of the after-birth. Dr. Mundé then went on to say that formerly he had to remove more placenta by introducing the hand into the uterus than was now the case, and he believed that the more carefully Credé's method was followed up, the less danger there would be of retained placenta.

When the placenta was loose in the uterine cavity, but retained therein by the contraction of the os (the encysted placenta of Barnes), the plan of expression was of no use, and traction on the cord was worse than useless. In such cases it was advisable to secure relaxation of the circular muscular fibres by means of chloroform. There was one point which he was always very particular to carry out, and that was, to examine the placenta and membranes with great care after their delivery, to make sure that the after-birth had come away entire; and if he found that any portion was left, he at once passed his hand, disinfected with an appropriate antiseptic solution, up into the cavity of the

uterus and removed it. He did not believe in leaving the matter to nature, for, while the retained membrane or portion of placenta, might perhaps not do any harm, the danger of evil results was so great that, in his opinion, it was simply criminal not to interfere. Where the hand had been introduced, it was always advisable to wash out the uterus with an antiseptic solution, and he would now employ corrosive sublimate for this purpose. Hot water, he believed, was better than cold, but in order to be of service it ought to be really hot, and there was more or less danger of the temperature being so high as to do injury. In certain cases in which the Credé method had to be kept up for a considerable time, and the necessary manipulations gave rise to more pain than was desirable, he thought it well to follow up the pressure by gentle traction on the cord.

DR. FRUITNIGHT did not believe in a let-alone policy, but thought that as the placenta had fulfilled its function, and, after the delivery of the child, became in a manner a foreign body, it should be gotten rid of as soon as possible. As a rule, the Credé method was undoubtedly the best.

DR. ISAAC E. TAYLOR, after some preliminary remarks on the great care with which the third stage should be managed, spoke of the shortening of the time occupied by it, which had been claimed for the Credé method. This he did not believe was a matter of importance, since the expulsion of the placenta was a physiological process, and there was no necessity for being in a hurry about it. Nature prepared the way for it, and showed us how to act in such a way as to assist her; but improper interference could not fail to do more harm than good. In all his experience, he had not had to introduce his hand into the uterus six times for the removal of the placenta. He used no traction on the cord, but, gently taking hold of it, he passed the fingers up to the cervix, the stimulation of which produced a reflex action which excited the fundus to contract. It was easy to discern to what portion of the uterine walls the placenta was attached, and when this was done, a little modification of the position of the patient would often facilitate the delivery. Thus, for instance, if the attachment was posterior, it would be of service to extend the lower extremities. If the placenta did not come away readily, however, there was not the slightest necessity for hasty interference. If the hand were introduced violently into the uterus, the procedure might be followed by bad consequences, and it was much better to wait for a considerable time before resorting to such a measure. If the after-birth did not come away within twenty minutes or so, there was no harm whatever in waiting one or two hours, if necessary, and nature was generally competent to bring the matter to a successful issue herself. Credé's method, Dr. Taylor remarked, in closing, was not applicable if the placenta was attached posteriorly, looking backward.

DR. RANSOM thought that the best way of delivering the after-birth was to employ gentle traction on the cord, in connection with moderate but firm pressure over the fundus. Out of seven hundred and forty-three cases in his own practice, he had found it necessary to introduce the hand into the uterus to accomplish the removal only in three or four instances, and in all these he found chalky granulations present both on the uterine walls and the placenta. One of these re-

sulted fatally from peritonitis four days after delivery; but he believed that this was due to the fact that, unknown to him, the nurse had been employing hourly vaginal injections. The average duration of the third stage of labor had been fifteen or twenty minutes in his hands.

DR. E. H. M. SELL said that he thought it was not advisable to adhere strictly to any one plan in all cases, but to be guided more or less by circumstances. In the early part of his professional career, influenced by the teaching of Prof. Taylor, he took from half an hour to an hour and a half to deliver the placenta; but more recently the third stage usually occupied fifteen or twenty minutes. Denham, as early as 1800, had given expression to views similar to those of Credé, but it remained for the latter to perfect the method. Personally, however, he would not tie himself down to any one plan. In only one case had he found it necessary to introduce the hand into the uterus. This was after the delivery of a monstrosity, the case being complicated by a short cord, as well as adherent placenta; and he interfered because hemorrhage was taking place. He believed, with Dr. Mundé, that too rapid carrying out of Credé's method was very liable to result in inertia of the uterus.

DR. GARRIGUES said, in bringing the discussion to a close, that it was quite natural that the three methods of which he had spoken in his paper should all have their champions to a certain degree, but he did not believe that any one present would be willing to trust exclusively to the do-nothing plan. All were agreed, he thought, that the delivery of the after-birth was a physiological process, and that our efforts to facilitate it should be in imitation of nature. There might be a diversity of opinion as to how this could best be done, but he had endeavored to show that the different points in Credé's method had precisely the same effects as the natural process. Traction on the cord, however, was not a natural process, and there was nothing in the physiological action analogous to it. If it were used at all, the traction ought to be as gentle as possible, but he himself went so far as to claim that in the vast majority of cases it should never be resorted to at all. In regard to Dr. Hadden's case of partial inversion, he remarked that this kind of paralysis of the portion of the uterine wall to which the placenta was attached was one of the recognized causes of inversion. He had not claimed that this accident was always caused by traction, but he did not doubt that it was sometimes due to it. In regard to the use of hot or cold water for injecting the uterus after the hand had been introduced into its cavity, he said that he preferred the hot, on account of its stimulating effect, although he acknowledged that there was danger of having it at too high a temperature. He was unable to understand how Dr. Taylor could tell when the placenta was attached without introducing the fingers or the hand into the uterus. He entirely agreed with the latter that it was bad practice to resort to early interference of a violent kind in retained placenta. With the Credé method the after-birth, as a rule, came away in a few minutes, but if it did not, it was his practice to wait for at least an hour and a half before introducing the hand into the uterus. He did not think it was right, however, ever to wait until the placenta had begun to decompose.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday, April 3, 1884.

THE PRESIDENT, R. A. CLEEMANN, M.D., IN THE CHAIR.

DR. CLEEMANN made some remarks on the subject of DIGITAL DILATATION OF THE OS UTERI DURING LABOR.

He had been taught not to dilate or stretch the os uteri with the finger, and for years this early teaching deterred him from making any attempt to supplement the contractile powers of the uterus by assisting in the process of dilating the os. Some time since he was called to attend a primipara, the waters had been discharged the previous day, the pains had continued, but the os uteri was very small and the cervical rim hard and unyielding. He felt called upon to interfere actively, and tried to dilate the os with his finger; it softened rapidly, and in half an hour was sufficiently dilated to allow the head to pass, and delivery rapidly followed. Since that occasion he has tried the same procedure on several cases, and always with gratifying results, the labors being brought to rapid terminations where previously hours had been wasted in weary and painful waiting. The irritable condition of the os, which has been lectured upon as the consequence of such interference, has not been experienced; no injury has resulted in any case. The soft finger can do no more harm, if clean, than a Barnes's or other form of dilator, and there is no danger, as in the case of the latter, of pushing the head aside and converting a vertex into a shoulder or other faulty presentation.

DR. W. T. TAYLOR said he had dared to deviate from the teaching of Professor Hodge, and had used his finger to assist the dilatation of the os; but he did not do so if the cervix was irritable or its edge wiry.

DR. GITHENS had practised digital dilatation of the os uteri throughout his obstetrical practice, a period of eighteen years. He does not confine it to any class of cases, nor does he wait until after the membranes are ruptured. In any or all cases he finds that a "pain" is accompanied by a contraction of the circular muscular fibres of the cervix as well as by a contraction of the longitudinal fibres of the body of the uterus. The contraction of the circular fibres retards the progress of the labor. The intention of the digital distention is to paralyze these circular fibres, and thus favor the dilatation of the os. In practice this effect is rapidly produced, One or two fingers are swept around the inside of the cervix, the pulp of the finger being next the cervix, and the latter is pulled away from the head. This operation is kept up during the interval between pains; when the pain occurs the finger is withdrawn; the operation is repeated in the next interval. The membranes are not ruptured by this process. The irritable condition of the os, if such exists, is subdued. If the rim of the cervix is wiry and thin, or hard and thick, it softens and yields; the cervix and vagina, if hot and unyielding at first, become cool and pliant; cervical tears are almost entirely avoided, and the time, pain, and exhaustion of the labor are reduced to a minimum. The process is useful in every case of labor throughout the first stage.

DR. PHILIP M. SCHIEDT practises digital dilatation largely. His patients say they recognize the assistance it gives them, and in subsequent labors ask him to help

them. By the great shortening of the first stage of labor resulting from this method, the use of the forceps is frequently avoided.

DR. PARVIN said he would be sorry to see digital dilatation adopted as a rule for all cases. He thinks it shortens labor by increasing the uterine contractions, and not by dilating the os. Voluntary efforts at bearing down are not needed during the first stage, they are dangerous rather than helpful. The method may be useful in some cases after the rupture of the membranes, which is the natural dilating agent. There is also danger of septicaemia from germs on the fingers. He does not think the fingers so good a dilator as Barnes's dilator, because they do not press equally on all sides of the os, but only on one point at a time, and thus cause an unequal thinning, with danger of laceration. He thought the danger of a change of presentation by the use of Barnes's dilator very slight. He would prefer a mechanical dilator to the finger whenever dilatation was necessary, but thought something ought to be left to nature. Any sort of interference carries a possibility of danger.

DR. ELLIOTT RICHARDSON thought that there was a possible danger of rupturing the membranes.

DR. R. P. HARRIS remarked that one point had been overlooked. Why does the os not dilate easily when the head is the dilating agent? It is because it is a round surface over which the cervix does not slide easily. On the contrary, the finger is applied at successive points. One benefit of the method is that any change or danger is at once detected. The method should not be used indiscriminately, and we should not interfere unnecessarily.

DR. CLEEMANN would not recommend the method in every case of labor. He has resorted to it in cases in which there has been early rupture of the membranes and the assistance of the bag of waters has been lost. In a recent case, he saved a patient hours of suffering, and the os was not bruised or injured in any way. The sight of any instrument causes the patient much anxiety, and the exhibition of the Barnes's dilator, and the water, syringe, etc., causes nervous excitement. The bags sometimes burst, and thus give the patient a terrible shock with the added discomfort of the escaping water or air. He has always carried them, but does not like to use them.

EXANTHEMATOUS DISORDERS IN THE PUERPERAL STATE.

DR. PARVIN had recently had an experience of the invasion of measles and scarlet fever in the obstetric wards of the Philadelphia Hospital. In the first case in which measles occurred, he did not think that the full term of pregnancy had been reached. Authorities state that premature labor is usually caused as a result of the high temperature of the exanthematous fever. One patient had septicaemia in addition, but recovered. The infants were not affected. In one case, soon after labor the temperature rose to 103°, and the patient was sent to the fever ward. At the second visit a slight rash was observed, which subsequently proved to be scarlatina. Desquamation was very abundant. Albuminuria was very marked on the tenth day. Rheumatic pains were also felt. The patient recovered. The child remained well. Children have been born with measles, but he did not know of such an experience with scarlet fever.

DR. W. T. TAYLOR some fifteen or twenty years ago,

had reported in *THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES*, 1853, a case of congenital smallpox. The mother had some febrile symptoms and pain in the back, and the child had the disease. He had a case of scarlet fever in a mother two days after labor; it proved fatal in two days; the child lived.

CORRESPONDENCE.

DOWNWARD DISPLACEMENT OF THE TRANSVERSE COLON.

To the Editor of *THE MEDICAL NEWS*.

SIR: An article with the above title, from the pen of Dr. C. H. Thomas, of Philadelphia, appeared in the *Boston Medical and Surgical Journal* of January 3, 1884. The writer states that the lesion seems to be of rare occurrence, and that Dr. Formad, of Philadelphia, in a series of autopsies numbering over two thousand, had not observed a similar case. Further, Dr. Formad, after thorough examination of the literature of intestinal lesions, had not met with any record of misplacement of the transverse colon.

From the fact of Dr. Thomas meeting with three cases, it would be fair to infer that the lesion is not as rare as has been supposed. In an autopsy of my own, made January 17, 1884, on a mulatto woman, aged sixty, who died of consumption two days previously, the "arch of the colon was low down in the iliac and hypogastric regions." Delafield mentions that it may be lower than the umbilicus; Orth, that it is sometimes depressed in the form of a loop, which may extend even into the pelvis; and Rokitsky, that it may descend into the hypogastric region. Turner (*Human Anatomy*, Edinburgh, 1877, p. 714) uses the following language: "Owing to the length of the transverse meso-colon, which forms its peritoneal attachment, it not unfrequently undergoes some change in its position, and may hang downwards toward the pelvis, or be elevated in front of the stomach or thrown to the right or left side. This tendency to displacement of the transverse colon should be kept in mind in the diagnosis of diseases of the abdominal viscera." Leube (Ziemssen's *Cyclopædia*, translation, vol. vii. p. 342) says that it may sink below the umbilicus. Charles Bell, and Sharpey and Quain speak to the same effect. So also Harrison (*Anatomy*). Bichat remarks the mobility of the transverse colon, which sometimes permits displacement. Cruveilhier says, "It is not rare to see it at the level of the umbilicus or even in the hypogastric region—even in the pelvis." He regards the corset as a main cause in women of the displacement downwards. He recites a case of an old woman in whom the arch descended perpendicularly, parallel with the ascending colon, passed into the pelvis, and then ascended to the left.

The *Index Catalogue of the Library of the Surgeon-General's Office* indicates several authors, under the head of colon anomalies. One case is by Maldern (*Midland Med. and Surg. Reporter*, i., 1828-9, p. 53). The transverse colon passed downwards to the right iliac region, and then ascended to the left hypochondriac. The displacement was not recognized during life. Esquirol (*Journ. Gén. de Méd.*, lxii., 1818, p. 341, and lxiii., 1818, p. 176) contributes cases of the

same sort in the insane. In one, the transverse colon descended perpendicularly to behind the pubis; in a second, a similar variation; in a third, the same; in a fourth, it reached to near the pubis; in a fifth, it reached quite to the pubis; in a sixth, the same; in a seventh, nearly to the pubis; in an eighth, to the pelvic cavity. Some of these were women, some were men. Esquirol thought that the phenomenon had not previously been noted. He found that the arch was in such cases usually empty. He adds that the insane people in whom he found the lesion were mostly affected with melancholia, and often complained of epigastric pain, likening it to a band around the hypochondria; the stools were generally bad. He did not, however, think that these symptoms explained the misplacement of the colon. Erdmann (*Archiv für Med. Erfahr.*, Berlin, ix., 1806, p. 98) mentions the occurrence of this lesion, and says that he found it very often ("sehr häufig bei Sectionen"). He gives cases, and says that he finds it mostly in women, and attributes it then to their wearing "stays." In his three cases, he found also a perpendicular direction of the stomach.

Roth (*Pathologia intestini coli*, Erlangen, 1803); Vater (*Diss. de situ naturali et præternaturali intestini coli*, Wittenberg, 1737); Leuringk (*De morbis a situ intestinorum crassorum pendentibus*, Goettingen, 1756), are said to have noted the displacement. Roth does give a case of displacement downward to the pubis, of the colon distended with flatus and feces; the case was narrated to him by another physician. The other two authors I have not been able to see.

Sylvius (opera, 1679, p. 185) mentions under the caption *De Variis Intestinorum Doloribus*, the deviation of the colon to the umbilicus and even sometimes to the bladder. Morgagni (*De sedibus et causis morborum*, translation, London, 1769, vol. ii. p. 125) in his thirty-fourth letter says:

"When that part of the colon which generally runs in a transverse direction to the direction of the body, and lies in contact with the stomach, is not really in that place, but is so remarkably inflected downward, there is no doubt but those persons must err, who deny that this part of the colon is seized with pain, by reason that the pain and torture do not run across the upper part of the belly, like a belt . . . and that what Sylvius has warned us of, does, in fact, frequently happen to the colon, not a few of the observations, both of Valsalva and of mine, which have either been already proposed, or are to be proposed hereafter, will confirm; although I have not had, nor shall have, occasion to take notice of, in these letters, all the bodies in which I have found it thus; for it is long since that I began to observe this variation, even before I happened to light on this passage of Sylvius, as the second of the adversaria (see Morgagni, *adversaria anatomica*, 1762, p. 33) will demonstrate . . . In those persons likewise, in whom the stomach is much dilated, and the liver enlarged in its size, that transverse part of the colon which lies under these viscera must be lower in the same proportion as they are enlarged. Add to these such causes as depress the stomach, and with it the colon, as I have seen it happen in a young man of Venice, from a very irregular inflexion of the spine. But besides diseases, there are also naturally different constitutions of bodies, and in these different constitutions different situations of the colon."

I have quoted so fully from Morgagni, because of his well-known erudition and close and ample observation.

This research might be extended, but sufficient has already been given to show that the downward displacement of the transverse colon is not so infrequent, but that the fact of its occurrence should ever be kept in mind in abdominal diagnosis; even of hernia in which this colic arch sometimes takes part.

Very respectfully yours,

D. S. LAMB, M.D.,

Army Medical Museum.

WASHINGTON, D. C., March 31, 1884.

A YEAR'S WORK IN OVARIOTOMY.

To the Editor of THE MEDICAL NEWS.

SIR: I am bound to say that Prof. Goodell is right in pointing out that Dr. Sutton's words are likely to give rise to misunderstanding. Dr. Sutton stopped with me here for about three months, and I don't know whether or not he saw me remove large tumors with extensive adhesions. It would be a matter of chance anyway, for cases nearly always go in "runs." In order that the nature of my work may not be misunderstood, kindly allow me to say that last year I removed eighty-two tumors of the ovary and parovary, with only two deaths. Two of these were very small dermoid cysts. The remaining eighty had an average weight of about twenty-seven pounds, the largest being about one hundred and twenty pounds, and the smallest eleven pounds. Twenty-seven of the cases are noted as having "extensive adhesions," nine "being universally adherent," and all of these twenty-seven recovered.

I am yours respectfully,

LAWSON TAIT.

BIRMINGHAM, March 26, 1884.

NEWS ITEMS.

WASHINGTON.

(From our Special Correspondent.)

CONGRESS AND PUBLIC HEALTH.—Mr. Beach, of New York, by direction of the Committee on Public Health, on April 1st, reported back with an amendment the following resolutions on the adulteration of food, drink, and medicine:

"Resolved, That the Committee on Public Health be authorized and directed to inquire into the truth of said alleged abuse, and to report to this House the result of their investigation at as early a day as practicable; and if it shall be shown that such practices exist, then to suggest or recommend in their report what further legislation, if any, is necessary to correct the wrong. And that they may more effectively do their work, be it further

"Resolved, That said Committee be, and they are hereby, empowered to send for persons and papers, and to employ such chemical and medical experts as they may deem necessary to carry out the aim, end, and object in view."

The amendment of the Committee was as follows:

"Strike out the words 'and to employ such chemical and medical experts,'"

The resolution gave rise to a prolonged discussion, in which Mr. Brown, of Indiana, Mr. Cox, of New York, and Mr. Reagan, of Texas, opposed the resolution as unnecessary legislation, while Messrs. Beach and Parker,

of New York, and Mr. Wait, of Connecticut, favored immediate and favorable action. A motion to further amend the resolution, by limiting the expenditure for such investigation to \$1000, was made by Mr. Kasson, of Iowa. Mr. Cox moved to lay the resolution on the table, which was lost. Mr. Beach then moved the previous question, and accepted the amendment of Mr. Kasson. Both amendments were agreed to and the question upon adopting the resolution as amended was taken. No quorum voted. A lively discussion followed, and Mr. Cox moved to recommit the resolution to the Committee on Public Health. Mr. Beach, Chairman of that Committee, moved to lay the motion to recommit on the table. A vote was taken and the motion lost. The question then recurred upon the motion to recommit, which was agreed to by a vote of 117 to 116.

A HOME FOR DISABLED SAILORS.—Mr. Finnerty, of Illinois, introduced, in the House, a bill for the purchase of ground at Chicago for a home for disabled and indigent sailors of the navy and merchant marine, which was read a first and second time, referred to the Committee on Naval Affairs, and ordered printed.

THE NATIONAL BOARD OF HEALTH.—Mr. Frye, of Maine, presented in the Senate the petition of the New York Committee for the Prevention of State Regulation of Vice, praying that the jurisdiction and powers of the National Board of Health be specifically defined and limited. Referred to the Committee on Epidemic Diseases.

QUARANTINE STATION AT CAPE CHARLES.—Mr. Libbey, of Virginia, on March 29, presented in the House resolutions adopted by the Council of Norfolk, Va., and by the merchants and manufacturers of Norfolk, and the Norfolk and Portsmouth Cotton Exchange, recommending the establishment of a national quarantine station at Fisherman's Inlet, Cape Charles, which were severally referred to the Select Committee on the Public Health.

The Secretary of the Treasury received, through the mayor of Portsmouth, Va., on the 4th inst., a set of resolutions adopted by the Common Council of Portsmouth, recommending the reestablishment of the quarantine station which was in operation last year at Fisherman's Inlet. Surgeon-General Hamilton also received a copy of the above-mentioned resolutions.

MEDICINAL PLANTS.—Mr. Morse, of Massachusetts, presented, in the House, the petition of the Massachusetts Pharmaceutical Association asking for an appropriation for the introduction of foreign medical plants, and for the protection of domestic medical plants.

NOT FOOT AND MOUTH DISEASE.—Dr. Salmon, Veterinarian of the Department of Agriculture, has returned to Washington from Kansas and other States, where, by direction of Commissioner Loring, he has been investigating the alleged outbreak of foot and mouth disease, and has made a preliminary report to the Commissioner of his investigations. In conclusion, Dr. Salmon declares that the recent outbreak is attributable to local conditions, and that no single symptom of contagious foot and mouth disease has been or can be shown.

DR. ALFRED STILLÉ.—It is stated that in the early part of next month, immediately after the close of the winter session, Dr. Alfred Stillé will tender his resignation as Professor of the Theory and Practice of Medicine in the University of Pennsylvania, after an incumbency of twenty years.

Five years ago Dr. Stillé offered his resignation, but at the request of the Board of Trustees he withdrew it. It is understood that Dr. Pepper will be elected to the chair vacated by Prof. Stillé.

A life-size portrait of Prof. Stillé has been painted by Waugh, by order of the students of the Medical Department, and will be presented to the University at the ensuing commencement.

NEW YORK NEUROLOGICAL SOCIETY.—At the Annual Meeting of this Society, held on the 5th inst., the following officers were elected for the ensuing year:

President.—William J. Morton, M.D.

Vice-Presidents.—Drs. C. L. Dana and G. W. Jacoby.

Recording Secretary.—Dr. E. C. Wendt.

Corresponding Secretary.—Dr. W. M. Leszynsky.

Treasurer.—Dr. E. C. Harwood.

Councillors.—Drs. E. C. Seguin, L. Weber, T. A. McBride, W. R. Birdsall, and Graeme M. Hammond.

GARFIELD MEMORIAL HOSPITAL.—In the notice of this hospital in our last issue, the name of Dr. J. Ford Thompson, as one of the attending surgeons, was accidentally omitted.

A MARINE HOSPITAL FOR NEW YORK.—The Committee on Commerce of the House has reported favorably the bill to provide for the purchase of the Seamen's Retreat, in Middletown, N. Y., at a cost not exceeding \$280,000, and the use of the same for the purposes of a marine hospital at the port of New York. In making this report the Committee says its enactment would do no more than put the port of New York on an equal footing with respect to marine-hospital service with ports of less commercial importance. It says that New York is the only seaport city in the United States with a large population which has not been provided by the General Government with a marine hospital.

THE DWIGHT LIFE INSURANCE CASE.—A telegram from Norwich, N. Y., states that on the 2d inst. the case of exceptions of Dwight against the Germania Life Insurance Company, was settled before Judge Follett, preparatory to revision in the General Term. On the next day the Aetna Life Insurance Company, of Hartford, which was a member of the pool to resist payment of the \$256,000 insurance on Colonel Dwight's life, paid his policy in that company, amounting to \$10,000. This is the third company which has paid its obligations.

THE MEDICAL ASSOCIATION OF GEORGIA will hold its annual meeting at Macon, on the 16th of April.

ILLINOIS STATE BOARD OF HEALTH.—The regular quarterly meeting of the Illinois State Board of Health will be held at the Grand Pacific Hotel in Chicago, beginning Thursday, April 17.

At this session candidates for certificates will be examined, both non-graduates, who must undergo an

examination upon their preliminary education, as well as in the usual branches of medical study, and also graduates of colleges which have not fully complied with the schedule of minimum of requirements adopted by the Board in 1880, and in force from and after the session of 1882-1883.

ALBANY MEDICAL COLLEGE.—At the annual commencement, held March 5th, the degree of M.D. was conferred on forty-three candidates.

MEMPHIS HOSPITAL MEDICAL COLLEGE.—This institution held its fourth annual commencement on the 29th of February, and the degree of M.D. was conferred on twenty-three candidates.

THE SOUTHERN MEDICAL COLLEGE held its commencement exercises at Atlanta on February 25th, and thirty candidates received the degree of M.D.

HEALTH IN MICHIGAN.—Reports to the State Board of Health for the week ending March 29th indicate that inflammation of the brain and pneumonia have increased, and that remittent fever, inflammation of the bowels, tonsillitis, and bronchitis have decreased in area of prevalence.

Including reports by regular observers and others, diphtheria was reported present during the week ending March 29th, and since, at ten places, scarlet fever at twenty-four places, and measles at eleven places.

OBITUARY RECORD.—DR. HALL DAVIS, of London, died on March 19th. He has long been well known as an obstetrician, and is the author of several contributions to the *Transactions of the Obstetrical Society*, of which he was an Honorary Fellow and formerly President.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM APRIL 1 TO APRIL 7, 1884.

BAILY, ELISHA I., Colonel and Surgeon.—Ordered to report to the Commanding General Division of the Pacific for duty as Medical Director of that Division and of the Department of California. —*Par. 4, S. O. 78, A. G. O., April 4, 1884.*

SUTHERLAND, CHARLES, Colonel and Surgeon.—To be relieved from duty in Division of the Pacific, and to report to the Commanding General Division of the Atlantic, for duty as Medical Director of that Division and of the Department of the East. —*Par. 4, S. O. 78, A. G. O., April 4, 1884.*

WOODHULL, ALFRED A., Major and Surgeon.—Granted leave of absence for twenty-two days, to take effect about April 6, 1884. —*Par. 13, S. O. 72, A. G. O., March 28, 1884.*

STERNBERG, GEORGE M., Major and Surgeon.—Ordered to be relieved from duty in Department of California, and to report to Commanding General Department of the East for assignment to duty.

MOSELY, EDWARD B., Captain and Assistant Surgeon.—Ordered to be relieved from duty in Department of the East, and to report to the Commanding General Department of the Columbia, for assignment to duty. —*Par. 4, S. O. 78, A. G. O., April 4, 1884.*

WILCOX, TIMOTHY E., Captain and Assistant Surgeon.—Ordered to be relieved from duty in Department of the Columbia, and to report to the Commanding General Department of the East for assignment to duty. —*Par. 4, S. O. 78, A. G. O., April 4, 1884.*

WHITE, ROBERT H., Captain and Assistant Surgeon.—To be relieved from duty at U. S. Military Academy, West Point, N. Y., August 28, 1884. —*Par. 7, S. O. 74, A. G. O., March 31, 1884.*